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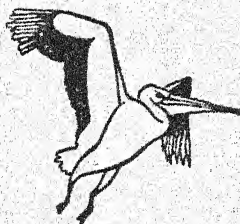
PHILOSOPHY AND LIVING

BY

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VOLUME I



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My STUDENTS IN W.E.A. CLASSES

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CHAPTER · I

WHAT PHILOSOPHY IS

SHALL I live for ever ? What am I ? Am I free or a machine ? Is there a God ? Is the universe such that the good must ultimately prevail ? What *is* good, anyhow ? What is the right relation between an individual and society ? What ought we to do with our lives ? What does "ought" really mean ? What is life all about ?

A man's first approach to philosophy is often due to the hope of finding clear answers to such questions. A high official of the Indian Government once said to me, "The whole aim of philosophy should be to discover whether human beings live again after death. If they don't, this life itself is not worth living."

I hold that my friend was mistaken both as to the importance of human survival and as to the function of philosophy. Yet he was right in one respect. Philosophy should have some bearing on the actual needs of human beings. It should help us to live, to adjust our behaviour more appropriately to the actual universe in which we find ourselves. My friend was wrong only in believing that the sole function of philosophy was to solve a certain question of fact; he was right in holding that philosophy should have some concrete result.

Philosophy is a way of life. It is not simply an intellectual discipline. Of course a rigorous intellectual discipline is included in philosophy; but no matter how rigorous, no matter how subtle and conscientious,

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intellectual activity alone is not by itself philosophy, in the fullest sense of that ambiguous but important word. Philosophy is an attitude taken up by the mind in relation to its whole world; a mental tone or temper which should affect the whole of a man's practical living, giving it a sanity, a coherence, a constancy of direction, which it could not otherwise have. Philosophy, according to the original Greek meaning of the word and its common English usage, is the love or the pursuit of wisdom, and wisdom involves action. A man who knew everything and did nothing about it would be no philosopher. Inevitably philosophical contemplation points beyond itself. It suggests an attitude to life, a mode of behaviour appropriate in beings such as ourselves, faced with a universe such as ours; or as ours is tentatively judged to be when we have learnt to see it from the point of view of the informed and cautious philosophical intelligence.

The sense in which I am using the word "philosophy" is not the only important sense in which it is used. The very influential modern school of philosophers known as the Logical Positivists give the word a much more restricted sense. They mean by it a purely intellectual discipline, and an intellectual discipline of a very special sort. They divide traditional philosophy into two parts, one of which they call "metaphysics" and the other "philosophy." Their starting-point is the contention that no sentence has any meaning at all unless it can be verified in sense-experience. (Or, if it cannot actually be verified, at least we must know what kind of sense-experience *would* verify it.) They then argue that most of what is commonly known as philosophy is in this sense meaningless verbiage, which

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unfortunately *seems* to have meaning. This they call "metaphysics." In their view the question whether external objects exist when no one is perceiving them is meaningless. All questions about the "reality" of the physical world, or about the "reality" of the mind, all questions about a "hidden reality" *behind* our experience, all questions about the "objective reality" of good and evil, are meaningless and "metaphysical," since they pretend to refer to something which cannot be verified in sense-experience. On the other hand, questions of fact which *can* be verified in sense-experience are questions not for philosophy but for science, and must be settled by careful observation and experiment. Philosophy, according to the Logical Positivists, is concerned solely with the logical analysis of thinking, or rather of correct thinking. It is not concerned with any matter of fact, but solely with the correct form and scope and limitations of thinking about *any* kind of facts whatever. Readers who wish at once to gain an understanding of the point of view of the Logical Positivists should study the following three small books: A. J. Ayer's *Language, Truth and Logic*, Rudolph Carnap's *The Unity of Science*, and his *Philosophy and Logical Syntax*.

In this book I shall not use the word "philosophy" in this restricted sense, but in the traditional sense. In the course of my survey I shall often refer to the theories of Logical Positivism, which constitutes one of the main growing-points of modern thought; but for reasons which I shall later explain I do not accept without qualification the fundamental contention about the difference between sense and nonsense. Consequently I shall not begin by throwing overboard almost the

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whole of traditional philosophy. But in dealing with each of the traditional subjects I shall try to consider the matter in the light of the arguments which the Logical Positivists have brought to bear on it.

Philosophy, then, for the purpose of this book, is the pursuit of wisdom. The philosophical motive is the will to understand one's experience as a whole, and to act accordingly. Sheer intellectual inquisitiveness is not the sole motive of philosophy. No doubt it does play a very important part in philosophical exploration. It affords the hand-to-mouth interest and relish. It turns intellectual toil into an adventure. But behind it must lie the genuine philosophical spirit itself, the will for sane and enlightened action in relation to the actual world.

Even if a man happens to be by profession an academic philosopher, who has to devote his main energy to minute logical analysis, he must do so, if he is to be a genuine philosopher, not for curiosity alone, nor yet for bread and butter alone, but because this course seems, when all is taken into account, to be demanded by his experience as a whole. That is, for him with his special powers, it seems the wise course to undertake, not merely for self-interest but as a member of the human community.

Though philosophy does not end with intellectual activity, absolute intellectual integrity must be the philosopher's working ideal. It is true that intellect is in origin the handmaid of practical need. It is true, and immensely important, that all but the simplest intellectual activity is swayed unwittingly by personal needs and social needs, which determine what must seem plausible and what not. But however difficult

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the enterprise, intellect must *strive* to bring such needs fully into consciousness; and, when they are irrelevant, must try to discount their influence. While the mind is seeking intellectual truth, it must so far as possible avoid being swayed by any desire other than the desire for truth. It must beware of accepting theories merely for their pleasantness, or merely for their unpleasantness. In this sense at least, whatever the precise meaning of truth, it must seek truth for truth's sake alone. But since truth is infinitely complex, and life is brief, a man must perforce choose which regions of truth he will explore, and which he will merely note from afar. And if his aim is genuinely philosophical, his choice will be controlled not merely by intellectual curiosity but by the will to discover and practise the way of life which is most reasonable when everything relevant is taken into account.

In some circles which claim to be progressive it is fashionable to despise philosophy as mere hair-splitting, without any reference to practical life. The charge is not wholly without foundation. The fault, however, has lain not with philosophy but with certain philosophers. For my part I am convinced that philosophy at its best really can provide something of very great importance to the individual and to society. It can in a sense tell us what life is about. I do not of course mean that it can say what the universe as a whole is about. In that connection it can make only tentative guesses, and suggest an appropriate humility. But it really can help a man to discover what, if the world and human nature are what they seem to be, is the most satisfactory aim for the individual and for the race.

But though philosophy can and should help us

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toward wisdom, it cannot do so if our minds are in any serious way damaged or warped. The will for wise action is very strictly conditioned by the circumstances of a man's life. And the extent to which that will can take effect on any whole society is also very strictly conditioned by circumstances.

There is some ground for saying that modern civilisation is peculiarly lacking in philosophy. It certainly has urgent need of it. Natural science has given us prodigious mechanical power. We have the physical means to make a happier and more vital world, yet we use our wealth and our skill largely for purposes that are trivial or actually destructive. Though we have power, we have not wisdom. But why have we not wisdom? No doubt as a race we lack it because as a species we have only half emerged from the brute. Very few of us, indeed, are capable of more than rare and precarious gleams of it. But there can be little doubt that, even with such limited powers as we have, we might in more favourable circumstances have been much saner and wiser than we are. The conditions of most men's lives are not favourable to philosophical contemplation and dispassionate judgment. Most of us have been brought up to prize only trivial ends; and most of us as adults have little energy to spare from the struggle for a living. Moreover, because our whole social order is insecure and haphazard, so that we are always dreading an economic crisis or a world war, it is difficult for us to see things with philosophical detachment.

Before we can begin, as a race, to practise wisdom, the widespread economic causes of anxiety, prejudice, and vindictiveness must be abolished. Not till the

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masses of the world's workers are freed from poverty and oppression and fear and the sense of futility will they be seriously influenced by the philosophical spirit. Where there is grave mental frustration philosophy cannot flourish. Courage and revolutionary fervour may occur, but not the philosophical will to see things whole and act appropriately. And in the last resort it is the masses that count. So long as the masses are incapable of the philosophical spirit, governments themselves, whether democratic or dictatorial, will also prove incapable of it.

If the philosophical spirit had been in control after the European War and during the two following decades, if Germany had been treated decently, if the League had been worked sincerely, the present breakdown of civilisation would never have happened. And to-day, though perhaps our most urgent need is for a radical and world-wide social change, and though it may be that this great change can be achieved only by revolutionary ardour; yet, even so, if the dispassionate philosophical spirit fails to play its tempering and enlightening part, revolution will after all give us only a new and more ruthless barbarism. No doubt the main crisis of our age is the social and political struggle between "Property" and the forces making for a more vital social order. No doubt this struggle mostly takes the form of a struggle between Fascism and Socialism. But underlying this conflict, and cutting right across it in a most bewildering fashion, there is a still deeper conflict which is difficult to name. Briefly it is the conflict between on the one side charity and reason, and on the other side morbid hate and unreason. So seductive is this spirit that it often leads astray even those who

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believe themselves to be champions of charity and reason.

This book is written, then, in the conviction that for the founding of a civilised world we need not only revolutionary fervour but also philosophical breadth and depth of vision; and also in the belief that, besides the few who have time and aptitude for a detailed study of philosophy, many are now feeling the need to clarify their experience of the world as a whole, not merely for idle curiosity but for better orientation and action. Opposed to them are the hosts who fear thought as they fear poison, and are doing their best to destroy such power as the civilised intelligence still retains in the world.

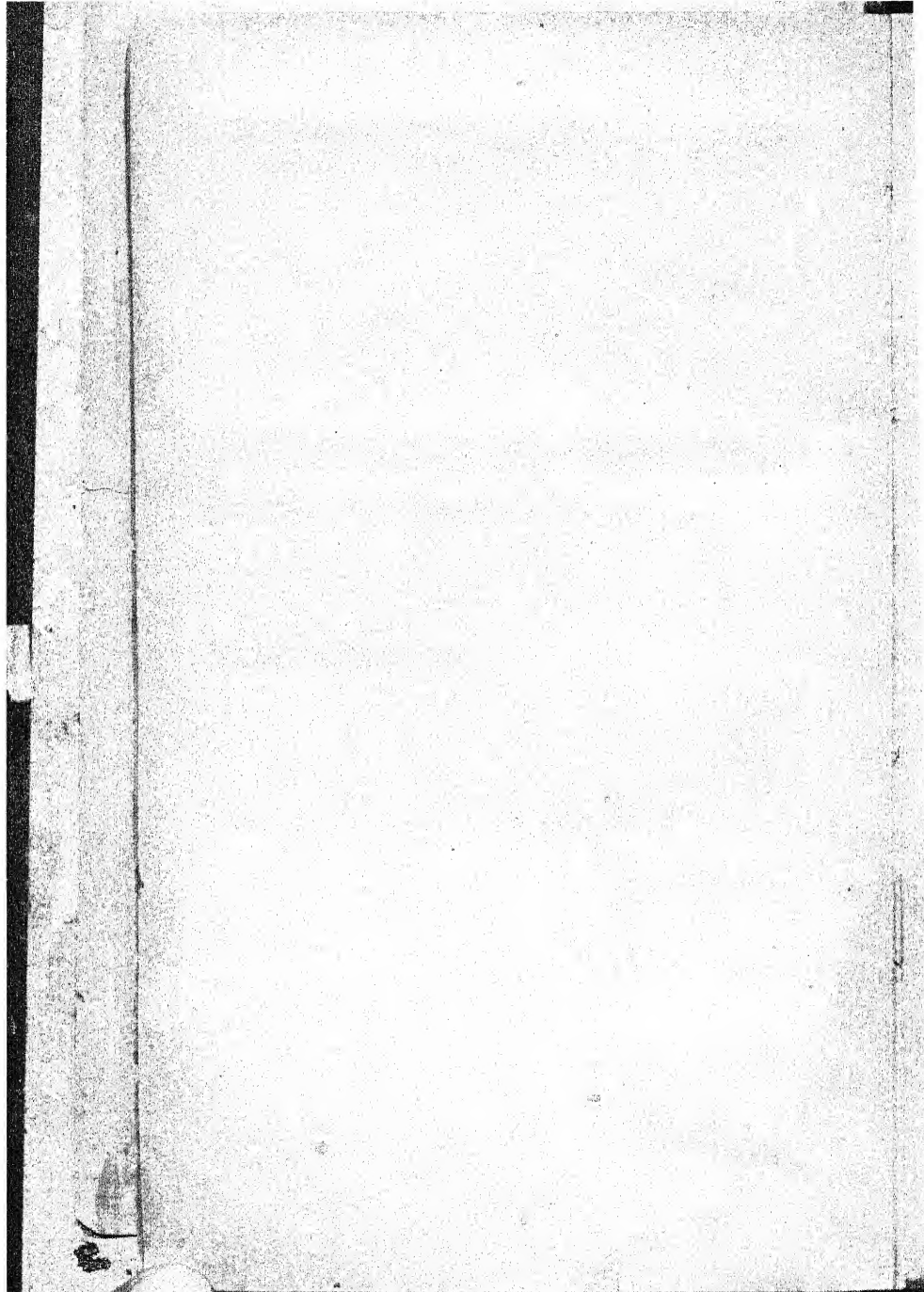
I shall consider a number of great philosophical problems, but I shall do so with a special aim in view, namely to show their bearing on the philosophical spirit. I shall try to deal with each of these subjects with full academic conscientiousness, but necessarily I shall fall far short of academic *thoroughness* or completeness. Though I cannot explore every avenue that the discussion opens up, I shall at least attempt to point out problems that I have not time to investigate. In respect of each subject my aim will be not merely to reach a tentative conclusion, but more particularly to draw from the discussion some positive gain for the understanding of the philosophical spirit.

At the end of the book the reader will find, as an Appendix, a *Guide to Reading Philosophy*. This is meant to be read after the main body of the book, but some readers may choose to refer to the relevant part of the Appendix after reading each chapter.

I shall begin my survey of philosophy with the sub-

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ject which my Anglo-Indian friend regarded as the supreme purpose of philosophy. The question of personal immortality is of interest to most human beings, and it is one which opens up many questions of a more distinctively philosophical type. I introduce it at this early stage not in the hope of reaching definite conclusions but to illustrate the philosophical method and the philosophical spirit.



CHAPTER II

EXAMPLE OF DISCUSSION: PERSONAL IMMORTALITY

I. The meaning of immortality. II. Emotional influence on thought about immortality. III. Arguments for immortality. IV. Arguments against immortality. V. Practical upshot of this chapter.

I. THE MEANING OF IMMORTALITY

BEFORE discussing our subject, let us be sure that we know what it is. First, let us distinguish between immortality and mere survival, whether for a short or a long period. Most of those who believe in survival probably also believe in immortality, or "eternal life"; but proof of survival is not necessarily proof of immortality in this sense, since survival of earthly death might conceivably be followed by a second and final death. On the other hand, proof of survival would certainly suggest immortality; since on the face of it, if we survive one death, we might reasonably expect to survive others.

But perhaps we are being too hasty. Perhaps we are using words which have really no intelligible meaning at all. The Logical Positivists roundly assert that this is so. The statement "A mind survives the death of its body" is one which, they say, cannot conceivably be verified in sense-experience; therefore it is strictly meaningless. In their view, as we have seen, no statement can have meaning unless it can at least in principle be verified in sense-experience. This is not the place to consider this claim in its general application. For

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the moment let us ask merely whether it makes nonsense of personal immortality.

Let us distinguish between conceiving merely *that* some sort of after-life occurs and conceiving *what* the content of that life really is. If its content is entirely non-sensory, all that we can conceive of it is that it consists of *some* kind of mental process, such as thinking, desiring, fearing, and so on. And it is not *inconceivable* that we should find evidence here and now, of an ordinary sensory type, suggesting that a particular mind, of known history and temperament, whose body is known to be dead, is communicating with us. The fact that we cannot conceive what *kind* of life he is leading "over there" does not detract from the significance of the statement that he, an identifiable mind, is now communicating with us.

What the plain man wants to know is whether, when he dies, he will "wake up" to find himself embarking on a new career, either with a new and lovely body or as a "disembodied spirit." What is the essential meaning of this last phrase? To be a disembodied spirit, a man would have to find himself still being aware, aware of something or other; though presumably not aware of the familiar world, and certainly not aware of the physical body which is central to all his experience in this world.

Some champions of modern science, more zealous than intelligent, affirm that this is inconceivable, not, indeed, for purely logical reasons but because it violates the laws of contemporary science. For awareness of every kind, they say, is dependent on a physical body, and the perception of any kind of world whatever involves sense organs. The answer to this is simple

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and final. Even though I may not *believe* in the existence of disembodied spirits, I can certainly *conceive* what it would be like to be a disembodied spirit, at any rate in this world. For instance, I might, as a disembodied spirit, simply perceive all that I now perceive of this world except my body, except the mass of visible and touchable characters which now constitute my body. I can even conceive myself to have the power of moving objects in the physical world although I had no body. There is nothing *inconceivable* in my causing my pen to write though I had no hand to hold it. Or rather, if this is properly to be called inconceivable, so is the familiar act of causing my hand itself to write. In neither case can I conceive *why* such an event should happen, but in both I can quite well conceive the happening.

To be a disembodied spirit, then, a man would have to be aware of events of some kind happening. Presumably he would also have to play some part in determining the course of events. Those who demand a life after death would not be content with a completely passive, inactive existence.

In saying that the disembodied spirit must be aware of events we have admitted that its experience must be temporal, must be of events happening "in time." Though the plain man vaguely thinks of his future life as in some sense or other "in eternity," he does not intend a timeless, static eternity, but rather an endless temporal process. He does not expect a changeless existence, but one which is as much alive with movement as his experience in this world. Indeed, a kind of experience which was not thus qualified by time, which was not aware of passage, would be quite incon-

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ceivable to us, save in the most abstract manner. It may be that beings more developed than ourselves might experience "supratemporally" ; but so far as we are concerned experience in its very nature involves temporal passage.

In desiring a future life a man assumes that such a life will be at least in part comprehensible to him. It will not be a completely unintelligible chaos. However different the other world from this world, he must sooner or later find his feet in it. Either it must be sufficiently like this world for him to learn his way about in it without any radical change in his own nature; or, if it is utterly different from the familiar world, he must wake up in it to find himself already equipped with the necessary knowledge and skill to cope with it.

Something else, of great importance, is implied in the idea of immortality or of survival. If a man is to live after death, the other life must be not merely *a* life but *his* life. In some sense, when he wakes he must recognise his identity with the self that lived on earth. He must therefore carry over into the new life at least some memories of the old life.

Indeed, if the life after death is to satisfy his present demands of it, it must allow human beings to carry beyond the grave a good deal of their earthly experience. For amongst a man's chief motives for desiring immortality is the hope of meeting again in the other world human beings whom he has loved in this world.

Clearly this demand not merely for consciousness but for personal identity in the other world involves something more than the carrying over of memory from this life. Personal character also must be preserved. A

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man and his friends must be able to recognise one another as having essentially the same familiar, well-loved natures that they had on earth. They may of course be greatly changed, and even, in a limited sense, "perfected"; but they must not be improved beyond all recognition. Certainly they must not be so magnified spiritually as to be entirely superhuman. Their temper, their tastes, their whole mode of behaviour, must somehow remain recognisable.

This raises a difficulty. On earth we express ourselves to one another by physical means. We talk and laugh and kiss. A man who demands survival for himself and his friends may be too sophisticated to believe that people in the other world have bodies. He may have sorrowfully resigned all hope of going to bed with his dearest after death. He may perhaps be a bit of a puritan and feel, poor fool, that such behaviour would somehow be improper in heaven. He would as soon think of doing it in church. But even if he resigns all physical intercourse, he must at least be permitted some other medium of communication; otherwise survival must be a mockery. Probably he vaguely postulates some kind of direct contact of mind with mind, some intimate feeling of the other's thoughts, emotions, and desires. But thoughts and desires must have some "content." They must be *about* something or other. If their subject-matter is not physical it must be something else. Even if this something else is itself mental, even if the thinking is just about thoughts and desires, those thoughts and desires themselves must have some content, must be *about* something other than themselves; and if this content is not physical, or embodied in physical characters, it must at least be embodied in

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some characters other than those of mentality itself. If the disembodied spirit is to be more than repetitive memory of earthly experiences, it must have *some* kind of environment, physical or else non-physical and to us inconceivable.

II. EMOTIONAL INFLUENCE ON THOUGHT ABOUT IMMORTALITY

Since I have already referred to some of the desires which determine the concept of immortality, this is perhaps a convenient place to consider the part played by desire in actual beliefs on this subject.

It is well known that desire is apt to distort our reasoning and influence our belief. The fact that a man desires immortality is itself no reason for disbelief, but it should put him specially on his guard against believing with insufficient evidence.

Probably the majority of human beings, when they think about the subject at all, do desire immortality. The prospect of annihilation is an offence to the universally strong motive of self-regard, the desire for the continuance and success of the active personality. And it is an offence to our love of other individuals.

Now clearly a man who is much influenced by these motives should be specially on his guard against a too-ready acceptance of the theory of human immortality. If he is aware of having these motives, it will be comparatively easy for him to counteract their influence. But unfortunately our believing is apt to be swayed much more by motives of which we have no clear cognisance than by those which come readily into the focus of attention. So at least we are told by our psychologists. Against these unconscious motives, it

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is said, reason is largely impotent. All a man can do, then, is to take note of the *kind* of motives which are considered to be common sources of unconscious prejudice, and to guard against these.

It is important to realise that, while many strong motives tend to produce an irrational belief in immortality, there are also motives which tend to have the opposite effect, leading to an irrational belief in the finality of death. One such motive is the fear of being irrationally swayed by the strong desire for immortality. Allied to this is the fear of being associated with sentimental, soft, or respectable ideas. This motive is quite as irrelevant to the problem as those on the other side, and a far more subtle snare, particularly for some members of the intelligentsia. For every irrational emotive influence on the one side there is an opposed irrational emotive influence on the other. For every taboo there is an opposite anti-taboo. If we should guard against being swayed by the one set of desires we should equally guard against the effect of the others.

III. ARGUMENTS FOR IMMORTALITY

We can now consider the main arguments for and against personal immortality. Let us begin with those that support it.

(a) *The Argument from Desire*.—Some hold that the widespread desire for immortality is itself a valid reason for believing that we are in fact immortal. The champions of this theory point out that many of our desires presuppose the existence of their objects. Thus the desire for food would never have occurred had there not, throughout the evolutionary past, been food available for eating; and similarly the desire for companion-

ship presupposes the existence of other persons in relation with whom the social impulses could gradually evolve. In some such manner, it is suggested, the desire for immortality presupposes the fact that we are immortal. We should never, it is said, have conceived the desire for immortality had we not been fashioned to be immortal, had not immortality been demanded to complete our mortal nature.

To such arguments the answer is simple. If we accept the theory of evolution, we must certainly admit that our desire for food is in part the product of past eatings and past food. But my desire for food does not prove the existence of food now and in the future. It proves, not that a royal banquet is being prepared for me to-morrow, but that *some* sort of food, probably very unpalatable to my modern taste, was available to my sub-human ancestors. In the same way, though the desire for companionship is certainly in part a product of the relations between individuals in past ages, it constitutes no proof that for all individuals ideal companions are available to-day or will be available in the future. Similarly the desire for immortality, which is but a form of the desire for life, indefinitely prolonged, is simply an expression of the opportunity which permitted our ancestors to live and breed. The analogy between the desire for immortality and the desire for food or for companionship is not exact. A closer analogy would be with the desire for a sumptuous and endless banquet or an ecstatic and eternal sexual embrace. These desires do not imply, each of them, a unique factor, calling for some special explanation. They are merely pathological developments of the cravings for food and sex.

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Another argument based on desire is pragmatic. It is first admitted that in the present state of knowledge immortality is not susceptible of logical or scientific proof. But it is argued that the truth of an idea is constituted in the last analysis by its usefulness in the enterprise of living, and that the idea of immortality is extremely useful, and therefore true. Human beings are such, it is said, that they live most fully in this life if they believe in a life to come.

The pragmatic theory of truth must be considered at a later stage. Let us for the moment accept the pragmatist's contention that we ought to mean by "truth" simply the practical serviceableness of ideas, or that the truth of an idea is constituted by its being a means to successful life. Even so, it is far from certain that the belief in immortality is such a salutary idea as it is claimed to be. It is arguable that the belief in another life has on the whole distracted men's attention from this life, has tended to make them less, not more, aware of the potentialities of this life; less, not more, sensitive to the reality of their fellow human beings. In spite of moral exhortation and the belief in reward and punishment in another world, the practical effect of the hope of immortality has often been to make them regard this life as in itself worthless, as something to be got through with as little trouble as is compatible with keeping the traditional moral rules that are supposed to ensure a happy life hereafter. I do not, of course, suggest that this is invariably the effect of the belief in an after life. Sometimes, undoubtedly, faith in immortality has been beneficial.

On the whole, then, so far is the belief in immortality from being plainly a salutary belief, that many have

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come to regard it as positively harmful to the proper growth of the mind. Only in the phase of mental adolescence, they say, a phase which most people never outgrow, does the persistence of human individuality seem an important matter. With maturity the mind should come to realise that the kind of fulfilment implied in human nature is not personal immortality but a brief participation in the co-operative venture of the race. So far is it from being true that we are "fashioned for immortality," that the desire for immortality is merely a by-product of an imperfectly developed phase of human nature. The belief in immortality, they say, prevents the mind from emancipating itself from values which are essentially puerile. Though on the whole I agree with this opinion, I shall not here defend it. I mention it only to show that the pragmatic argument for immortality is far from convincing. A similar but contrary argument might with at least equal force be used by the opposition.

(b) *The Argument from Intuition.*—Some insist that they *know* intuitively that they are immortal. A personal being, they say, has only to look intently into its own nature and experience to recognise that such a being is necessarily indestructible, and that no intellectual argument against immortality can shake the certainty of that intuition.

Their position is unassailable, but their truth is incommunicable. If they really have such an experience, if it is as precise and unmistakable as they claim, they are justified in brushing argument aside. Men with sound eyes need not concern themselves with the arguments of blind men to prove that seeing cannot occur. But it is impossible for those who see to tell those who

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were born blind what seeing is. Only on one condition can the vision of those who "see" their own immortality have any public significance. Let us pursue the analogy of the blind. They would be very foolish if they were to believe that seeing did not occur, for it must be clear to them that those who claim to have sight are in many ways much more capable than those who have it not. *Some* kind of power, then, they must seem to themselves to lack. And if those who claim intuitive knowledge of immortality show by their conduct that they must have some capacity lacking in the rest of us, we must take their claim seriously. I have already said that I can discover no good evidence that as a class the believers in immortality are more successful or virtuous or even more happy than those who lack this belief.

The analogy of the blind will help us in another way. Even though the born-blind have reason to believe that normal men have a power lacking in themselves, they would be very unwise if they were to believe every account of the world revealed by vision, or every story of a ghostly apparition. Similarly in the case of the supposed intuition of immortality, even if those who claim to have it do have some kind of experience withheld from the rest of us, it by no means follows that their intellectual interpretation of that experience is true. And since these intuitive believers in immortality are generally also ardent desirers of immortality, it is reasonable to suspect that their unverifiable interpretation of their incommunicable experience is influenced by their strong desire.

We must not, however, reject the evidence of the seeming intuition of immortality as simply worthless.

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It is often held with conviction by persons who are very far from puerile, who are highly developed in sensibility toward the more subtle aspects of human consciousness. Unbiased reading of the literature of mysticism suggests that the great company of the mystics cannot simply have suffered from delusions born of unconscious craving. Rather, they seem to have perceived *something* of overwhelming majesty and beauty which completely defeated their powers of description. Inevitably they interpreted it in terms of their traditional culture, and believed that it gave assurance of the traditionally most precious things, namely God and personal immortality. It may well be doubted whether, if they had not *assumed* that these were supremely desirable, the ineffable experience would have seemed to guarantee them. Indeed, many mystics, particularly in the East, refrain from claiming that their experience guarantees *personal* immortality. Instead they emphasise the necessity of personal annihilation by absorption in the infinite spirit. We may therefore reasonably suspect that the personalistic interpretations of some western mystics need not be taken as true in a literal sense. Perhaps the only inference from the fact of mystical experience should be that, however ephemeral the finite personality, in *some* sense mind or spirit is basic to the universe. But such a conviction, which is extremely vague and very far from certain, has little bearing on the plain man's desire for everlasting prolongation of his familiar personal self.

(c) *Arguments from the Importance of Personality.*—Some find it incredible that such important things as human persons should be inconsequently and finally

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snuffed out by merely physical accidents such as disease, old age, or violence.

Believers in immortality often contend that human persons, in spite of all their faults, are essentially, or at any rate potentially, such good things that a universe or God that allowed them to be annihilated at death would be guilty of gross stupidity and wastefulness in the working out of the universal plan. And this they refuse to believe. On the score of injustice also, God or the universe would have to be condemned. In this life, it is said, some of us have much more pleasure than we deserve, others much more distress. Clearly another life is needed to redress the balance. A similar argument may be based on charity. If God is good, it may be said, he must act lovingly toward his creatures. He cannot be good unless the millions of frustrated and tormented persons receive comfort in eternity.

Yet another variety of the argument is based on our experienced need for personal fulfilment. Even the most fortunate of us are imperfect creatures; and all of us, it is said, strive wittingly or unwittingly for perfection, for fulfilment of our mental and spiritual capacities. In this life we never achieve perfection. Therefore we must be given another opportunity hereafter.

This form of the argument could not be fully considered without discussing the meaning of perfection in relation to personality. Such a discussion I shall later undertake. Meanwhile it is enough to note that the idea of personal development *toward* an ideal limit of perfection is quite intelligible. Such development may be abstractly and summarily described as growth in accuracy of awareness of the universe and the self, in appropriateness of action, and also in creativity of

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action, a vague phrase which I shall explain in the course of discussing Personality.

All these arguments for immortality assume that the extinction of human persons is for one reason or another incompatible with the goodness of the universe or the moral perfection of God. This is not the place to discuss the question as to whether the universe *is* in any sense good, or whether there is any reason to believe it to be controlled by a good God, or the more fundamental question as to the meaning of "good." Let us for the present assume that the universe is good, or that a good God controls it, and that the word "good" has a single, essential, and objective meaning. But let us consider whether these assumptions do imply human immortality.

The defenders of this theory seem to overlook two possibilities. The first is that in respect of intrinsic goodness and instrumental importance human persons may be of a very low order in comparison with other things in the universe. It may be that to condemn the universe (or God) for not allowing immortality to men would seem to superhuman beings as foolish as to condemn it for not allowing immortality to fleas. We are able to accept the mortality of fleas because we are not impressed by their intrinsic goodness and their cosmical importance, whereas we *are* impressed by our own. The assumption that man is of the highest order of importance seems to be based on nothing but lack of imagination. Of course mere physical immensity and subtlety do not themselves constitute intrinsic goodness in the universe. But if we claim intrinsic goodness for human persons we must recognise that the physical immensity and subtlety of the universe do suggest, and

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do offer scope for, beings incomparably more developed than human persons. The human race is rooted in a very minute fraction of the whole universe, and it is possible, even probable, that the rest contains modes of life which excel us in mental lucidity as man excels the amoeba. In face of this possibility it seems comically foolish to claim that if human minds are annihilated at death the universe cannot be very good, or its creator righteous.

The second possibility which the religious defenders of immortality overlook is that the nature of the human individual should after all not be such as to be *capable* of fulfilment by personal immortality. It seems probable that everything characteristic of a particular human individual, everything that distinguishes him from other individuals, is in some sense conditioned by his inheritance and his environment. Apart from the effects of inheritance and environment he is nothing but a completely abstract and undifferentiated psychical capacity, a capacity for knowing—feeling—striving in *some* manner. The actual detailed way in which he does so must depend on his body and his world. It follows that any kind of perfection or fulfilment possible to him must be fulfilment in a world essentially identical with this world. In heaven, in any conceivable heaven, he could no more find fulfilment than a cut flower in a vase can find fruition, or a fish translated into the stratosphere could find happiness.

We have raised a fundamental question about the nature of human individuality, and one which we must consider more carefully at a later stage. Is a man to be thought of more truly as a distinct and self-complete spirit or "ego" which in any environment, in any

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world, would remain the same identical "thing" or "substance," no matter what accretions of experience were to be added to it? Or is he more truly to be thought of as an expression of and a factor in something bigger than himself? Is his office in the cosmos something like that of a musical phrase, the function of which is not to be prolonged, or even to be developed, for ever, but to fulfil a part in the music and in due season vanish? If this is the true view, then the only perfection possible to him is the perfect fulfilment of his part in the whole, in the "music" of human life. But is there any such music of human life, and if so what is its true style and tenor? Once more we raise, but must not yet discuss, fundamental questions.

If the human individual is essentially an expression of his world, the demand for personal immortality is beside the mark. Whatever the truth about him, it is surely preposterous to argue that if we have not personal immortality the universe, or its creator, stands condemned. I ask myself, "Supposing I am doomed to unfulfilment and annihilation, is the universe therefore less than perfect, or God's nature therefore blemished?" And I answer without hesitation, "Of course not." My brevity and unfulfilment may actually be a factor in a perfection that is achieved, so to speak, over my head. Then I ask myself, "If immortality is denied to those most dear to me, and some are very dear, is the universe, and is God, condemned?" Once more the answer is, "Of course not." And what if *no* persons are immortal and ultimately perfected? Is the universe therefore one whit less good than it might be? Of course not. It is enough that persons, with all their imperfections, should occur, that they should achieve such dim and

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ephemeral lucidity as they do achieve. Such wealth and glory of existence as does actually happen before our eyes is enough, and is perhaps also an earnest of glories inconceivable to man.

It may be objected that although this view may satisfy those who are happy in this life, the vast host of the grievously frustrated will reject it with scorn. If they do not receive compensation hereafter, they may well spurn the universe.

Well, I ask myself as sincerely as I can, "Do I really demand that the universe should treat human individuals with charity, or even with justice?" The answer is emphatically "No!" When my mind is in the state which I cannot but recognise as its most lucid state, I do not demand charity or justice even for my friends. I *crave* them, but I do not *demand* them as a condition of my approval of the universe. Something I do demand, but this is irrelevant to the present discussion.

The champion of immortality may reply, "You are blind. You are insensitive to the distresses of your fellow human beings, and to the necessity that love should be supreme. If the universe, or the deity that rules it, lacks charity, it is contemptible. And it is not contemptible. In my heart I know that God is good. Therefore we are immortal."

Here we seem to come on a direct conflict of intuitions, of immediate, unreasoned valuations. Each party "in his most lucid state" condemns the valuation of the other. Is there any way of deciding the issue? Not, I think, till we have discussed the whole question of intuition and reason; and not till we have enquired whether there is any means of judging the relative lucidity of minds.

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Meanwhile, about the argument for immortality based on the importance of human individuals we may conclude as follows. It depends on two assumptions, namely that the universe is good, or ruled by a good God, and that such goodness necessarily involves human immortality. The first assumption we have not discussed; but even if it is in some sense true, there is at least grave doubt whether the second assumption is justified.

(d) *The Epistemological Argument.*—Some philosophers hold that nothing, other than minds themselves, can exist save as an experience in some mind. Consciousness, they say, is the very stuff of which the universe is made. Matter is but a mode of the experience of personal minds. Matter depends on mind, they say, for its existence. It is simply a form of mind's experience. Mind, they are convinced, does not depend on matter. The destruction of the mere body does not bring destruction to the mind.

The doctrine that matter is just a form of our experience, and that to be *is* to be perceived, will be discussed in due course. For the present let us suppose it to be true, and let us consider its bearing on immortality.

The doctrine implies only that for the universe to continue after *my* physical death *some* mind or minds must survive. It is quite compatible with the theory that henceforth the universe consists of the perceptions of my survivors, and that successive generations of short-lived minds will keep it in being.

On one condition alone has the doctrine any bearing on my immortality, namely that I am the sole mind. According to this theory, called Solipsism, my ex-

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perience is all there is. Other minds are mere figments of my mind. Solipsism, though very unpalatable, seems to be strictly irrefutable. What is its relation to immortality? When, within the universe of my experience, the bodies of other persons cease to exist, their minds also cease to exist, since they no longer play any part in my experience. Indeed, they never really existed at all as centres of experience, for according to the theory I am the sole centre of experience. On the other hand, if my own body were to cease to exist, I, the sole mind, would not therefore cease; for my body (in this theory) is only a figment of my mind.

Clearly the only sort of immortality which Solipsism permits is very far from satisfying the common desire of the plain man who wants to live "hereafter."

(e) *The Argument from the Unity of the Unconscious.*—Some believe that, though consciously we are distinct from one another, "below the threshold of consciousness" we are all one deathless mind. In this view our conscious personalities are all expressions of the common racial mind, or perhaps of the universal mind. They are said to be like islands which, though distinct above the water-level, are united in the sea-bottom. Those who accept this theory claim sometimes that it assures us of immortality. When we die, they say, we are not mentally extinguished. All that is extinguished is our insularity, our separateness from one another.

Without discussing the merits of the theory itself, let us consider its relation to immortality.

According to the theory, when a man dies, he "wakes up" to find that he is the common mind. What a waking it must be! Presumably he comes into possession of all the conscious experience of all in-

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dividuals, and also of their "unconscious experience" in virtue of which they constitute a single mind, though unwittingly. In fact, when our friend dies he is going to have the shock of his life, for he will find himself being at once himself and everyone else, and something infinitely more than all of them together, namely the common mind of which they are all normally unconscious. It may reasonably be questioned whether there is any sense in saying that *he*, the lamented human individual, has survived his death. For he has become something fantastically different from what he was. He has become his neighbour and his enemy and all the swarms of Asia, and presumably all past generations also. To give him such immortality is to annihilate *him*.

(f) *The Argument from Spiritistic Phenomena.*—I have thus far considered arguments that derive personal immortality either from the nature of personality itself or from its relation to an essentially good universe. Not one of these arguments carries much weight. It is now time to consider an argument of a very different kind, one which is rather scientific than philosophical, since it is based on the careful examination of evidence.

From time immemorial some have claimed that they have actually communicated with the spirits of the dead. In our own day many persons whose honesty and intelligence are above question are convinced that we do receive messages from the living dead, either by direct personal intercourse or through the help of some "medium," someone gifted with special sensitivity in relation to "the other world."

Much very skilled and conscientious work has been done in this field by the Society for Psychical Research.

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As I have had no personal experience of it I shall not attempt to criticise its technique. Some of those who have thorough knowledge of the work are men whose integrity and shrewdness seem to me to guarantee the authenticity of any evidence that passes their scrutiny. I therefore accept the data that they offer. But I do not necessarily accept their interpretations of it.

Let us consider what sort of evidence is necessary to establish the claim that the spirits of the dead sometimes communicate with us. It must be such as we cannot more plausibly explain on any other theory than that of human survival. The established principles of science must be shown to be incapable of explaining it.

Further, the evidence on which we base our belief in survival must have a specially high degree of cogency. Theories which fit naturally into the general system of our knowledge need less cogent evidence than theories which cannot be thus accommodated. For example, less cogent evidence is needed to prove that a man has normal ocular vision than to prove that he can see with his stomach.

To prove human survival, then, we must have very cogent evidence that the minds of persons known before they died are still in some manner having intercourse with us after their death. Events must happen in our experience which very strongly suggest that an intelligent mind is expressing itself through them; and, further, that no mind now alive on earth in the normal manner, but only the mind of the person known to be dead, could have expressed itself in that way.

In passing judgment we must guard against: the influence of desire (for and against) in ourselves and

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others; fraud; ambiguity in the evidence; explanation in terms of inadequate, over-simple concepts.

Professor C. D. Broad has personally examined much of the evidence. In his book, *The Mind and its Place in Nature*, he discusses its significance, and suggests a very interesting conclusion. I cannot do better than summarise the verdict of this eminent and very clear-headed philosopher.

The most impressive evidence is of the type called "cross correspondence." Imagine a number of mediums or automatic writers in different localities, all working for a long time without communicating with one another. Suppose that their scripts, though individually fragmentary and unintelligible, are found to fit together to make sense. Suppose that the sense is in some unmistakable manner characteristic of a particular mind that has ceased living the normal life. It might, for instance, convey information known only to the dead person, and subsequently verified by carrying out instructions contained in his spiritistic messages themselves. This would be strong evidence of his survival.

A vast amount of work of this kind has been done, but the upshot is far from clear. It is difficult enough to eliminate fraud, but still more difficult to eliminate the possibility that the source of the messages was the unconscious telepathic influence of living minds. By "telepathic" influence is meant any kind of direct influence of mind on mind without the aid of the senses. (In passing we may note that the degree of cogency needed to prove telepathy, though high, is not so high as that needed to prove survival.) On the other hand, as Professor Broad points out, the fact that so many

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mediumistic messages purport to come from the dead and not from the living is more intelligible if the main source of them is the "other world." But again, the fact that the investigators themselves are chiefly interested in evidence for survival may incline the medium to interpret his experiences in terms of survival.

Unfortunately, the evidence is seldom straightforward. Its significance has generally to be discovered by means of ingenious interpretations of matter which, on its face-value, is worthless. We know very well that with sufficient skill it is possible to discover in any complicated text almost any hidden meaning that we will. The Bacon-Shakespeare controversy and the wilder dream-interpretations of the psychoanalysts should give us pause. When we bear this in mind the empirical evidence for survival is far from convincing.

All the same, to the unprejudiced mind that has tried to take everything relevant into account, it does seem probable that mediumistic phenomena are caused partly by influences of *some* kind as yet unrecognised by any of our sciences. Such at least is the tentative verdict of Professor Broad. But the most interesting part of his verdict is this. He finds no reliable evidence to suggest that the dead live on as experiencing minds, capable of actual desiring, thinking, and purposefully communicating with us; yet he does find evidence that, when a man has died, some traces of his past experiencing, of his memories, may persist and be picked up by living mediums, much as the letters that the man once wrote may be picked up and read by his survivors. These persistent traces must not be regarded as constituting an actual experiencing mind; for of actual

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conscious process on the part of the dead there is, in Professor Broad's view, no evidence. But also these traces are seemingly not merely physical, since distance appears to make no difference to the ease with which they are recovered by the medium.

Readers of Mr. A. W. Osborn's recent very interesting book, *The Superphysical*, may feel that I have grossly under-estimated the evidence for the survival of conscious personalities. In his view the case is abundantly proved, and Professor Broad's theory is unnecessary. Mr. Osborn's evidence is certainly very striking. But to accept it as proof of human survival (in the ordinary simple sense) is in my view hasty. In fact, the upshot of the book in my mind is, not to make me feel that survival is proved, but to confirm my opinion that in "mediumistic phenomena" we touch upon the fringe of a vast area of possible experience for the understanding of which we have as yet no adequate concepts.

Whether Broad's theory of the "psychic factor" is true or not, it is of interest because it attempts to solve the very obscure problem not by a plain yes or no, but by the invention of a new concept to fit the evidence. It is, after all, extremely probable that man's questions about his destiny as an individual are wrongly and far too simply stated, and that in their present form they admit of no true answer, one way or the other. Probably the question, "Do we survive death?" is as misconceived as the question, "Which came first, a hen or an egg?" This, of course, is quite an intelligible question; but those who accept the theory of biological evolution can see that it entirely misses the mark. The same may turn out to be true of survival.

So far as the plain man's plain question about his

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survival is answerable at all by reference to such phenomena, it must, if Professor Broad is right, be answered in the negative. For the survival of mere memory traces is very different from the kind of survival which is demanded by the plain man who wants to survive.

I have now glanced at all the main arguments for survival and immortality known to me, and they have been shown to open up a large number of philosophical questions, some of which I shall consider in due course. Meanwhile it should be noted that whenever such a question arose I assumed, for argument's sake, that it could be answered in a sense favourable to personal immortality, and proceeded to enquire whether, even so, immortality was credible. The upshot seems to be that, though some of the arguments deserve serious consideration, none of them is at all weighty. It is now time to discuss the arguments against personal immortality.

IV. ARGUMENTS AGAINST IMMORTALITY

(a) *Alleged Overcrowding of the Other World.*—Most of the arguments against personal immortality are even less convincing than those in favour of it. Some of them can be dismissed in a few words. To begin with the silliest, we are sometimes told that if all human beings who ever lived on earth live for ever in the other world, that world must be scandalously over-populated. This argument will appeal only to the very simple, whose idea of the other world is closely tied to their idea of this world. There is no reason to restrict the capacity of the other world in any way, if one can believe in it at all. The relation between this world and the

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other might be like the relation between the area of the cross-section of a telegraph wire and its total surface. If we like, we may stipulate that the wire shall be very long. Let it stretch from the earth to the most distant star, and back again; and let it cover this distance an infinite number of times. And anyhow, since the other world is presumably not spatial at all, the idea of overcrowding seems to be entirely meaningless in relation to it.

Such force as this argument has is really emotional. By insisting on the multiplicity of human beings, those who disparage human individuality seek to embarrass those who prize it as unique and precious.

(b) *The Problem of Animal Immortality.*—A rather more impressive objection to immortality may be stated as follows. Either human beings alone are immortal, or animals also. The former possibility seems unpalatable in view of modern biological knowledge, which suggests that the difference between men and the higher animals, though great, is not fundamental. On the other hand, if some non-human animals are immortal, where is the line to be drawn between the immortal animals and those that perish utterly? One way out of the difficulty is to say that not only men and the higher animals but all living things are immortal, even down to the most ephemeral bugs and bacilli. Many believers in immortality are revolted by this possibility, and find it quite incredible. This is sheer prejudice, derived from man's desire to preserve his aristocratic privileges to himself alone.

(c) *The Argument from Man's Insignificance.*—Another objection to human immortality is based on the petty nature of man himself. In such a vast uni-

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verse as ours, it is said, there can be no cherishing of so minute and ephemeral a thing as a human individual. The births of men and the lives of men are fortuitous and negligible consequences, we are told, of "mighty forces" which plainly have no concern for them. If any power or god cares for anything at all, he must find plenty to occupy himself with, and plenty of much greater importance than the trivial spirits of human beings. This argument has no more weight than the opposite argument, which claims to defend immortality on the score of man's importance. The more trivial man is, the more glory to his creator in providing him with eternal bliss.

We must remind ourselves, too, that physical minuteness in space and brevity in time are entirely irrelevant to the question of man's importance, save in so far as they suggest the possibility that the universe may harbour beings of much loftier mental stature than men. Minute and ephemeral as we are, we have no positive evidence that there are nobler beings than ourselves. If our world should happen to be after all the only mind-inhabited world in the cosmos, we should with some reason claim that the rest of the universe, a waste of mere space and fiery points, was entirely worthless in comparison with ourselves. But the possibility that ours are the sole minds in the cosmos is almost incredible. If there are others, perhaps far more developed than ourselves, it may, of course, be that we are negligible by-products of the cosmical process, and doomed to extinction; but equally it *may* be that they, and we also, are set in this world of space and time to fit ourselves for eternal life elsewhere.

(d) *The Argument from Mind's Dependence on Body.*—Perhaps the strongest argument against personal immortality is that which is based on the observed relation of mind and body. Minds, it is insisted, are essentially products of the neural and glandular events of a physical organism. No mind, therefore, can conceivably exist without the particular body that supports it. Now clearly, *if* minds are essentially body-dependent, immortality is impossible without the resurrection of the body, or its reduplication in another world.

In the next chapter I shall discuss the whole question of the relation of body and mind. Meanwhile I shall assume that the verdict of science favours the theory of the complete body-dependence of our minds. What are the implications of such a hypothetical scientific discovery? All the facts which science studies are derived from our experience of *this* world. All scientific laws are generalisations of mundane happenings. Have we any justification for believing that they hold good beyond the mundane sphere? So far as I can see, we have none whatever; except the negative reason that we have no reason to believe that they do not. It is conceivable that, though minds in the mundane sphere are dependent both for existence and character upon physical events, they become at death wholly emancipated from the physical. Logically, science might quite well succeed in proving that within the universe studied by science, minds are physically determined through and through; yet science might remain incapable of making any true statements whatever about any other sphere. Consequently, if there were any cogent positive reasons for believing in the existence of the "other world," and the continuance of our lives therein, the scientific argu-

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ment based on mind's dependence on body in this world could not weaken them to any extent whatever.

V. PRACTICAL UPSHOT OF THIS CHAPTER

What bearing has the foregoing discussion of personal immortality on philosophy, which we have defined as the love and the pursuit of wisdom ?

Clearly, in the present state of human knowledge the problem of immortality cannot be solved. It depends on a great number of other problems which would have to be settled before we could affirm that human persons are immortal, or that they are not immortal. The most obvious of these problems is that of the nature of personality. Is a personal mind nothing but a sequence of mental events, or is it an enduring something, a spirit, which *has* the experiences ? And what of the relation between body and mind ? Is mind simply a product of body ? Behind this lies the problem of the authority of natural science. What kind of authority is it, and how far does it extend ? Can science secure any "inside information" about the nature of reality ? And what is the status of the external world in relation to the mind that perceives and studies it ? Is body, and the physical universe, a product of mind ?

Behind this problem again lies the more general problem of the nature of knowledge. Is our knowledge ever what we mean it to be, an apprehension of the actual nature of reality ? Or is all intellectual enterprise doomed to failure ? And is there perhaps some other kind of knowledge, which is not subject to the disabilities of intellect, and which apprehends and enters into its object intuitively ? The problem of ethics also was raised in our discussion, for we had to

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consider the "importance" of personality. Is "good" an objective character which simply belongs or does not belong to things? Or is objective goodness an illusion caused by the pleasurable nature of things which favour our activities? And is there any reason to believe that good and bad are in any sense relevant to discussions about the universe as a whole?

These are some of the problems raised by our enquiry. Clearly the discussion of immortality has effectively served to open up the whole subject of philosophy. But short of solving all the questions that have been raised, can we reach any tentative conclusions, or must we preserve a completely open mind?

It seems that the balance of such evidence as we have discussed is on the whole against the survival and immortality of human persons as recognisably identical experiencing minds. There is no clear and cogent evidence that they do survive in any sense relevant to the demand for personal immortality; and there is some not wholly worthless evidence that renders their survival somewhat improbable.

But this almost entirely negative result should not be regarded as the final outcome of our discussion. In conclusion I shall summarise what seems to me the true line of mental advance in respect of the idea of immortality. There is certainly a stage, an early stage, in our development at which the prospect of annihilation for ourselves and our beloveds seems terrible. But the frank acceptance of this prospect should, I believe, turn out to be the way to further growth. It should free the mind from the shackles of egoism. It should lead in the long run to a more secure peace and joy and

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a greater moral strength than would otherwise have been possible.

Here perhaps a word of caution is needed. The acceptance of human ephemerality can only be the way to growth on one condition, namely that the acceptance is not made an occasion for self-pity, or even for pity of the human race. The masochist, the addict to self-torture, is apt to hug the brevity and futility of personal existence to his breast like a block of ice, narrowing his whole consciousness upon it in such a way that his interest cannot develop. This is always the danger of the tragic view of life, which sometimes turns out to be merely self-pity masquerading as impassioned stoicism. The power of this snare lies in the fact that it is concealed in the direct route of advance. For the genuine tragic view is one which the mind must pass through if it is to leave behind the misconceived optimism of its immaturity. But the genuinely tragic view of life is not warped by self-pity. It is, of course, a painful sacrifice of cherished things, but it includes no gloating upon pain itself. The spirit remains quick and receptive, and objective in its outlook.

Naturally, if a man has been brought up to believe in immortality as a birthright, and to expect eternal reward or punishment for his conduct on earth, the sudden destruction of this faith may have a shattering effect on both his happiness and his morality. He may become so oppressed by the seeming futility of human existence that he will give up all serious effort, and suffer a deep moral disintegration. Something like this did actually happen to European culture as a whole during the first quarter of this century. In hosts of individuals the old moral sanctions were lost, and

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nothing new took their place. The prolonged effects of industrialism and the relatively sudden effects of war combined with loss of faith to undermine moral stamina. Four distinct mental attitudes emerged. There were typical, disintegrated, unmoral, neurotic, "post-war" minds, very sick at heart. There were seekers after new, yet essentially archaic, comforting faiths. There were intellectually honest, but spiritually blind and self-pitying, stoics. And there were those few who were bewilderingly stimulated to a painful real advance in sensibility.

This advance is not primarily intellectual, though intellectual scepticism made it possible. It is an advance in sensibility, in feeling. It is the discovery that, after all, the loss of the old faith has made the universe more, not less, worth living in; more, not less, fulfilling to the newly awakened spirit. In outgrowing the old needs we discover new needs, which, though less insistent, prove capable in the end of a more far-reaching fulfilment.

In relation to immortality this advance consists intellectually of complete agnosticism. Emotionally it involves detachment from the desire for immortality, through the discovery of more satisfying values. At this stage I shall not attempt to say what, in my view, those values are.

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CHAPTER III

MIND AND BODY

I. The problem stated. II. Some implications of the problem. III. Interactionism. IV. Epiphenomenalism. V. Psycho-physical parallelism. VI. The Double Aspect theory. VII. The Emergence theory. VIII. Conclusions, and new questions.

I. THE PROBLEM STATED

IN the course of our discussion of personal immortality we came upon the seeming dependence of mind on body. Let us consider more closely the relation of these two very different but intimately connected things.

I shall begin by stating the problem as it appears to common sense; or rather to contemporary common sense, for the common sense of one period may be very different from that of another.

When we distinguish between body and mind at all, we normally think of them as two distinct things or substances, each of which takes effect on the other. A human body is thought of as a physical object having shape, solidity, texture, and internal structure. Its parts could quite well exist without the man's mind; though perhaps they could not be related together in the complex pattern which constitutes a living human body.

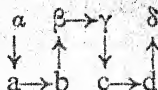
By a mind we normally mean one or other of two things. Either we mean simply the continuous but ever-changing sequence of experiences—the thinkings, feelings, imaginings, desirings, and so on, which tumble upon one another's heels throughout our waking hours; or else we mean a vague "something" which is supposed to *do* or *have* these experiences.

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It seems at first obvious that there are such distinct things as body and mind, and that they do take effect on one another. A physical kick on the physical shin affords the mind a certain experience. Apparently the bruising of the body's tissues takes effect on the course of mental events. Similarly, alcohol sets up changes in the body, and these seemingly produce mental changes. Again, a blow on the head may produce "concussion" and cessation of consciousness.

On the other hand, a mental event, such as the learning of good or bad news, may produce changes in the blood-circulation or general physical vigour. The will to move a limb generally causes the limb to move.

For clarity's sake let us represent the theory of the interaction of body and mind by means of a diagram. Let $\alpha, \beta, \gamma, \delta$ represent mental events in a certain mind, and let a, b, c, d represent the correlated physical events in the body. The host of physical events which have no observable correlated mental events may be neglected. Let the causal connections be represented by arrows. Then the theory of the interaction of body and mind may be represented thus:



If we accept the general principle of the interaction of body and mind, we are faced with the question whether the two have equal power, or one of them dominates the other. Seemingly the body is greatly influenced by the mind, for voluntary muscular activity is almost continuous. On the other hand, the mind is obviously influenced continuously by the impact of the

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external world on the body in perception, and less obviously so in changes of mood and intellectual capacity. How far does this influence reach? Is it only an occasional minor factor, or is it at work always? Is it true, as some believe, that the course of mental events is simply an expression of the physical events of the body? Is mind really quite incapable of affecting the physical? Is volition a sheer illusion, an experience caused simply by physical events in the nervous system? Is the movement of the limb (and equally the movement of attention in thinking) really produced by physical, not mental, causes?

II. SOME IMPLICATIONS OF THE PROBLEM

(a) *Substance and Attribute*.—The mere statement of the problem of body and mind commonly implies certain assumptions which must be brought into clear consciousness even if they are not yet to be fully discussed.

Common sense, as we have seen, assumes two distinct things or substances, body and mind. Each is thought of as remaining essentially identical from time to time although changes happen to it or in it. Thus, though there are bodily events, such as breathing, eating, digesting, "the body" is thought of as remaining in some sense "the same" body throughout these passing events. Similarly, with the mind there are rapid changes of perception, thought, feeling, and also slow changes of mood, but "the mind" is supposed to remain "the same" mind.

In philosophical language, common sense assumes that body and mind are enduring *substances* having changeful *attributes*, and mutually influencing each other.

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This mode of thought, in terms of substance and attribute, is open to serious objection. Pressed to say what the enduring substance in each case really is, the plain man would probably be content to reply that the substance is some sort of nucleus which does not change. But it is clear that in the case of the body there is no such constant nucleus. The human body is not much more constant than a candle flame, in which *all* the material is continually passing in and out of the flame.

Pressed further, common sense would probably say that the substance is simply that featureless and unknowable something which is "the underlying cause" of all the knowable attributes. But if the substance is unknowable, why introduce it at all? To this, common sense, echoing the thought of the past, might reply that the unknowable substance is required logically as the unifying and enduring "ground" of the attributes. Some modern philosophers, however, deny that there is any need for such a logical ground. Our craving for it, they say, is due to an accident of our language, which makes use of the grammatical machinery of "subject" and "predicate." We must outgrow this prejudice, they say, and recognise that (for instance) a body simply *is* the sum of the events that make up its history, and that a mind simply *is* the sequence of its mental events.

The subject-predicate way of thinking suggests that *behind* the whole world as it appears to us, there lies "reality" itself, which is different from its mere appearances, and is in principle unknowable. Opposed to this view is the view that, however little we know of reality, what we do know is all of a piece with, is of the same order as, what we do not know; that the world

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is not an unknowable substance, having knowable attributes, but that it is a vast system of "happening," analysable into separate "events" which occur in relation to one another.

With regard to the body-mind problem, even if we give up the substance-attribute way of thinking, the problem still remains. It is no longer a problem about the relations of two substances whose attributes are physical characters and mental characters. But it is a problem about the relation between two sequences of events, namely physical and mental. The course of events in the one sequence is obviously related to the course of events in the other. For instance, when we drink alcohol, certain intestinal events are followed by certain changes of mood. Conversely, certain thoughts and desires are followed by certain bodily movements. In each case, we say, the earlier event "causes" the later.

(b) *Causation*.—This raises another assumption implied in the body-mind problem as it appears to common sense. It is assumed that causation does occur, that one event does have some sort of power in virtue of which the succeeding event has certain characters and not certain others. Lightning "causes" thunder, drugs "cause" mental changes.

Here we come upon one of the great philosophical problems. What sort of thing is this "causation"? What reason have we to believe that it happens? *Does it really happen?*

It was long ago pointed out by David Hume that we cannot see any *necessity* in the sequences that we call causal. All that we actually observe is the succession of events. Just because we observe certain recognisable successions of events over and over again, we grow to

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expect the particular kind of initial event always to be followed by the subsequent events, unless some other influence interferes. This expectation leads to a *feeling* of necessity, and of some hidden efficacy by which the one event produces the other. Impressed by this criticism, modern science no longer claims to be discovering *necessary* laws, but merely to be making generalisations from observed sequences, generalisations on which we may base our expectations. Thus stones dropped from high places do not *necessarily* fall with an acceleration of thirty-two feet per second every second. But experiment discovers that, when irrelevant influences are excluded, they do approximate very closely to this "law." Further, observation reveals that this "law" can be related to other "laws," derived from observation of the movements of the planets. But so far as science is concerned these "laws" *might* cease to operate to-morrow. Stones might start leaping from the ground. If they did so, scientists would be very surprised, but they would not say that necessity had been violated. They would merely set about re-describing the sequences of events and forming new generalisations, new physical "laws."

In discussing the body-mind problem, then, we are assuming causation, either in the full sense of efficacy or in the modified sense of invariable sequence. We are assuming, that is, that if certain events happen, certain other events will also happen, unless some contrary cause prevents them.

III. INTERACTIONISM

We can now consider some of the difficulties in the theory of the interaction of body and mind.

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(a) *Inconceivability*.—It is sometimes said that the interaction of two such different things as body and mind is inconceivable. The causal relation between one bodily event and another is felt to be intelligible in principle, because in this case cause and effect are of the same order. But some regard it as inconceivable that a volition should cause a muscle to contract, that a drug should cause a change of mood, that a physical change in the brain should cause an experience.

This objection seems to be based on the illusion that causal relations between physical events themselves, or between mental events themselves, *are* conceivable. Actually they are nothing of the sort. That a moving billiard-ball should push another out of its way instead of passing through it or annihilating it or turning it into a fairy coach and six is, after all, an impenetrable mystery.

The objection, however, may be put in a more subtle and plausible manner. Physical causation, it may be said, is credible because all physical events are changes within a single physical system of events. Mental events also are events within a single whole, a single mind, united in virtue of unity of experience. But bodily events *and* mental events, it may be said, form no such single system together, and so their causal connection is inconceivable.

There is some force in this argument. But we must not be deceived by it. The billiard ball's efficacy within the physical system is really no more intelligible than a drug's effect on the mind. On the other hand, it may well be that if we knew more about body and mind we should see that they are not really two distinct systems but one. In this case, however, we might have to abandon the theory of interaction simply because mind

and body no longer appeared as two distinct things interacting, but rather as two aspects of one and the same thing.

(b) *The Conservation of Energy*.—Against Interactionism it is often argued that if mind interferes with the course of physical events in the body, the physical Law of the Conservation of energy must be violated. Energy may be roughly defined as the capacity for doing work. This capacity can be measured according to recognised standards. And though the measurement of one form of work against another introduces serious difficulties, we may take it as fairly well established that, *within a closed physical system*, the sum of the potential and the kinetic energy, or of the possible and the actual work, is the same at every moment.

The living body is a physical system. Therefore, we are told, it *must* keep the Law of Conservation. Of course, the body cannot be completely isolated so as to become a closed physical system, since if it were it would die. But the amount of energy entering and leaving it can be fairly accurately measured and accounted for. On the whole, the evidence suggests that a living body does function according to established physical laws. Experiment and observation have led to a steady advance in our knowledge of the physiological mechanisms of the body, and have made it seem to some scientists increasingly probable that in time we shall have a complete account of the body's behaviour in terms of biochemical laws. Such an account would refer to nerve-tracks and glandular secretions, and would allow no room for any influence of mind on body. For, in this view, the purely automatic behaviour of the system could not be interfered

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with by the mind without either introducing additional energy into the system from some occult source, or by withdrawing energy from the system. The body is like a moving motor-car. To alter its purely mechanical course the driver must at least apply energy to the steering-wheel or the accelerator pedal.

It is sometimes argued in defence of Interactionism that the mind might alter the direction or the timing of energy-changes in the body without infringing the Law of Conservation. This is clearly a mistake; for, according to the law, the direction and timing of energy-changes is quite strictly determined by the preceding physical conditions. There is no room for interference of any kind without adding to or subtracting from the sum of energy.

All the same the theory of Interactionism need not necessarily be false. In the first place, the physical observations on which the Law of Conservation is based are far from accurate enough to justify a confident assertion that the law applies to the living body as a system closed against mind's interference. It may be, for all we yet know, that the mind, or that the course of mental events, does actually create or annihilate very minute quantities of physical energy at critical points of the nervous system, and so control the course of the nerve current, and therefore determine behaviour. Some believe that it does this in raising or lowering the resistance of the "synapses," the junctions of the nerve fibres, and so directing or blocking the nerve current. This is not inconceivable. But the Law of Conservation within the physical sphere has become so familiar and useful that this possibility has come to seem very un-
plausible.

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Some scientific workers, however, and some philosophers, have been forced to the conviction that purely physical laws cannot possibly give a complete account of the body's working. So intricately purposeful, they say, is the structure and function of the body, so subtly self-regulative, that some purposive or teleological principle must be supposed to control the physical functioning of the body's organs. They have not been able to tell us anything at all clear about this non-physical influence.

A more radical defence of Interactionism may be derived from recent criticisms of the Law of Conservation itself. It has been pointed out that the Law works just because we have so stated it that it *must* work. We have affirmed that so much energy in one form shall be equivalent to so much energy in another form, *so that* we may produce a workable Law of Conservation. I am not competent to criticise this contention. But it is necessary to point out that these established equivalences do hold good systematically in the physical world, and that they leave (apparently) no room for interference on the part of mind.

On the whole, then, the difficulty over Conservation remains a serious one. But if strong reasons were forthcoming to make us believe in Interactionism, this difficulty should not stand in the way. For, after all, we cannot yet be sure that the Law of Conservation really does apply to living bodies.

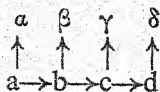
Let us, however, suppose for the moment that Conservation is true of the human body, and that human behaviour can be fully described in terms of physical laws. The relation of mind and body has then to be stated in terms of the theory of Epiphenomenalism.

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IV. EPIPHENOMENALISM

According to this theory causation occurs only in the physical sphere. There is no causal relation between one mental event and another, or between a mental event and a succeeding physical event. The desire to solve an intellectual problem does not cause the subsequent mental operations. The desire to move a limb does not cause muscle fibres to contract. In both cases the real cause is a physiological event in the body. All experiencing is a sort of by-product of physiological machinery, like the noise of a factory. Mind is only an epiphenomenon, an ineffective "appearance upon" the physical causal sequence.

Epiphenomenalism may be represented diagrammatically. As before, let α , β , γ , δ represent mental events, and a , b , c , d physical events, and let the causal relations be represented by arrows.



It is sometimes objected against Epiphenomenalism that in volition we have actual experience of the necessary causal efficacy of mind on body. Volition certainly does feel as though it caused the desired action. In this respect it is different from the experience of a mere reflex act, such as hiccoughing, which we do not feel to be mentally caused at all. But the feeling of causal efficacy in volition is easily explained by Epiphenomenalism. The volition, it may be said, consists of a desire followed by a muscular movement. Both are physically caused. But the often repeated experience of the sequence "desire-movement" generates a

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strong expectation that desire will again be followed by movement. Or rather, putting the matter more accurately from the Epiphenomenalist's point of view, the *physiological events* corresponding to the experience of desire-followed-by-movement cause the physiological events corresponding to the expectation desire-will-be-followed-by-movement.

But though we must reject the view that in volition we actually experience a necessary causal connection between a mental event and a physical event, we may reasonably hold that the conviction of the efficacy of volition should not be abandoned unless Epiphenomenalism is supported by very strong evidence. And no such strong evidence has yet appeared.

Another objection to Epiphenomenalism is based on the nature of rational thinking. When we think, the sequence of our thoughts is apparently determined by the logical implications of our thoughts. To argue that the sequence is really controlled not in this manner but by mere physiological events in the brain is to undermine thought itself, and therewith even the theory of Epiphenomenalism. Any theory which denies the validity of thinking cuts the ground from under its own feet.

To this the Epiphenomenalist may perhaps reasonably reply that the neural tracks in the brain are themselves in the first instance determined by the impact of the environment, and that the experience of logical implication in thinking, though only an epiphenomenon, is none the less a true reflection of the logical structure of the objective world. Thus, though the intuition of logical implication does not actually *cause* the sequence of thoughts, it is the conscious aspect of the physio-

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logical connections which do cause the sequence of thoughts, and which, moreover, are themselves determined in the first instance by the logic of the objective world.

But once more we must suspend judgment. Though reasoning can thus be accounted for by Epiphenomenalism, we should not lightly pretend to abandon the belief, inescapable in practice, that in reasoning the course of thought is directly controlled by intuitions of logical implication. Nothing short of overwhelming evidence should destroy this conviction. And the evidence for Epiphenomenalism is far from overwhelming.

It is sometimes said that Epiphenomenalism is incredible because, if consciousness were ineffective, its occurrence would be inexplicable. It is affirmed that consciousness must be explained in terms of survival-value. It occurs and has reached a high stage of development just because it has proved biologically useful, because it has made for survival. Now this may be true. But perhaps what had survival-value was not actually consciousness but a highly integrated nervous system; and perhaps a highly developed consciousness is just the mental epiphenomenon of this.

A more general objection to Epiphenomenalism is this. If consciousness throughout the universe is ineffective, the universe is meaningless, futile, unintelligible. To this we must answer that, after all, the universe is very far from intelligible anyhow, and we have no right to expect it to be intelligible.

A moral argument is sometimes brought against

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Epiphenomenalism. If men come to believe that volition is ineffective, all moral striving will cease. To this the answer is that the moral consequences of a belief in the theory are irrelevant to the question of the theory's truth.

There is some tentative physiological evidence against all theories based on an exact correspondence of a physical and a mental series of events. I refer to the supposed "vicarious functioning" of brain-tracts. It is admittedly true that damage to specific brain-tracts is often followed by specific mental disabilities, such as disorders of speech or sensation. But we are told that after a while a neighbouring tract can take over the office of the damaged tract. If this is the case, it makes nonsense of Epiphenomenalism, since, if Epiphenomenalism is true, each tract should have its inalienable function. However, the evidence for vicarious functioning is far from conclusive, and is seriously obscured by the probability that neighbouring undamaged tracts which were temporarily thrown out of gear by the lesion may subsequently recover their powers. When they begin to function again we may be tempted to suppose that they are recovering not merely their own powers but the powers of the damaged tract.

However this may be, there can be no doubt that a good deal of correspondence does exist between brain areas and mental functions. And it is certainly possible, some would say probable, that the correspondence is, in fact, exact. Many kinds of experience which formerly seemed independent of physical causation are now known to be physiologically determined. But Epiphenomenalism cannot be established till such physical dependence is shown to be universal, so that

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there is no room for mental causation to insert itself anywhere, and also no general "looseness" in the physical causal system, such that mental causation might be enabled to insert itself unobtrusively everywhere. In fact, a strong objection to the theory is the intellectual objection that it is based on insufficient evidence. It is a case of the all-too-common "fallacy of the specialist," who is so impressed with the success of his particular technique that he assumes it to be universally valid.

We may reasonably hold that the theory treats the physical much too seriously, or uncritically. It is too credulous that, while the objects studied by natural science, the drugs, molecules, atoms, electrons, are substantial, the events which we call mental are merely phantasmal. But this criticism we cannot develop till we have raised the question of the status of the external world.

V. PSYCHO-PHYSICAL PARALLELISM

Some philosophers, impressed by the importance of treating the mental as seriously as the physical, and anxious at the same time to do full justice to the claims of physiology, have adopted a theory known as Psycho-physical Parallelism. According to this theory there are in the living brain two entirely independent causal sequences, the one physical, the other mental (or, as some say, "psychical"); yet the two sequences run parallel, in the sense that for every event in the one sequence there is a corresponding event in the other. For example, in writing these lines I experience certain mental events which are causally connected with each other in a purely mental manner; but at the same time

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a series of physical events occurs in my brain, and these are causally connected in a physical manner. The total mental state at any moment and the total physical state at the same moment are very complex, and, of course, qualitatively different. But the elements that make up the mental state are related together in a pattern which corresponds, point by point, with the pattern of the physical state.

We may represent the theory diagrammatically, using the same symbols as in the other cases, thus :

$$\begin{array}{c} \alpha \rightarrow \beta \rightarrow \gamma \rightarrow \delta \\ a \rightarrow b \rightarrow c \rightarrow d \end{array}$$

One objection can be brought against both Parallelism and Epiphenomenalism. Both, it may be said, render consciousness useless in evolution. This argument, as I have already said, has some force, but it could not carry weight against any strong positive reason for believing in Parallelism. However, there do not seem to be any strong reasons for Parallelism; and there are strong reasons against it.

Perhaps the chief reason against it is the extreme improbability that two complex causal sequences should continue indefinitely with strict correspondence and no connection with each other. This improbability is vastly increased by the fact that the bodily sequence is being constantly influenced by contact with the external physical world, while the mental sequence, by hypothesis, is not so influenced, and is presumably wholly insulated.

This difficulty is particularly obvious in the case of sudden violent collisions between the body and other physical objects. A man is knocked over by a motor-

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car, and his brain is damaged. Henceforth, perhaps, he suffers from specific disorders of speech, or perhaps he goes blind. Such cases overwhelmingly suggest that physical events take effect on the course of mental events. If the man's aphasia or blindness was not caused by the physical damage to his brain but by some purely mental cause, what was it? And how strange that a catastrophic change in the one sequence of events should occur just when a similarly catastrophic change occurs in the other!

It may reasonably be objected against Parallelism that it implies the theory that *every* physical event, whether in a living brain or not, has a mental correlate. In this view there is a mental universe, no less complex than the physical universe, and correlated with it in every detail. Certainly this supposition would help the Parallelist out of the difficulty about the motor accident; for he could say that the patient's catastrophic mental change was due to the *mental* influences of the *mental* events correlated with the physical events of the on-coming car.

Now it is not wholly inconceivable that every physical unit (say, every electron and proton) is the body of a very simple mind. But if this is so, where does the mind of a man come in? For in this view his body is a host of bodies of very simple electronic and protonic minds. Perhaps we shall be told that his mind is in some strange manner just all these simple minds merged into one complex mind. It is easy to use such language, but what does it really mean? *I* am not a host of atomic minds. *I* am a single mind.

The truth is that the theory of a parallel mental universe is too cumbersome a support for the Parallel-

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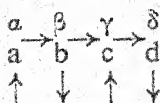
ism of human body and mind. There may be such a universe, but we have no evidence for it.

It would seem, then, that there are no cogent reasons for accepting Parallelism, and some strong objections to it.

VI. THE DOUBLE ASPECT THEORY

An attempt has been made to overcome the difficulties of Interactionism by supposing that body and mind are complementary aspects of one and the same substance, like the inside and outside surfaces of a sphere. The mind-process and the body-process, it is said, are really one and the same process of events; but in the one case the process is observed externally, and in the other it is lived through internally. Events in this psycho-physical sequence cause succeeding psycho-physical events. They also causally influence and are influenced by the environment, which, of course, we know only externally, as physical. Whether the physical environment also has an internal, mental aspect need not be decided.

The theory may be roughly represented thus:



As before, the mental is represented by Greek letters, the bodily by Roman. Arrows of causation connect successive states of the body-mind. Other arrows of causation impinge upon the body-mind from the external physical world, and in turn issue from the body-mind to the external physical world. In both cases the body-aspect is the medium of intercourse

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with the external world; but internal causation is as truly mental as physical.

It may turn out that this way of stating the mind-body relation is more accurate than any which regards body and mind as two distinct substances, or, on the other hand, regards one as substantial and the other as a mere phantasm. But in so far as the Double Aspect theory depends on the substance-attribute distinction it is to be suspected. According to the theory, body and mind are two attributes of one substance. What is the relation between these attributes, or between each of them and the substance which comprises both? Clearly, in the present state of our knowledge the theory is not very helpful, because, instead of solving the difficulties, it merely conceals them. For it is not *self-evident* that the body and mind imply one another, as do the inside and the outside of a sphere. Consequently we must still enquire how it is that their changes correspond. And in particular we must still enquire which of the two aspects of the psycho-physical substance is the significant one for understanding the causal sequence. Inevitably the theory resolves itself into either a disguised Interactionism or a disguised Epiphenomenalism.

VII. THE EMERGENCE THEORY

Some philosophers, impressed with the seeming purposefulness of much in the behaviour and structure of living things, have adopted a far-reaching theory of the "Emergence" of life and consciousness from the physical. When physical units are organised in certain very complex patterns, it is said, *new* capacities emerge in the *wholes* thus formed: The most striking of these

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capacities are the capacity for purposeful, or teleological, behaviour, directed toward the survival of the individual organism or the species, and (on a still higher plane of organisation) consciousness. In passing we may note that the concept of teleological behaviour does not necessarily involve consciousness. Behaviour is said to be teleological, whether conscious or not, if it cannot be adequately described without reference to an end or goal, if it observably infringes mechanical laws in order to reach a goal.

The behaviour of a purely physical system can always *at least in theory* be predicted in terms of purely physical laws. This is said by some philosophers to be impossible, even in theory, in the case of the living organism. However thoroughly we study the behaviour of physical units in purely physical situations, we cannot (it is said) conceivably discover solely by such physical study all the laws of their behaviour in the essentially different biological kind of situation. The behaviour of the emergent whole is not accountable simply in terms of the laws descriptive of the behaviour of the parts as revealed in non-organic situations. Merged in the unified whole of the organism they are able to manifest potentialities which elsewhere they cannot manifest at all. From the physical point of view there is nothing in the organism but electrons, protons, electromagnetic undulations, etc. But *in the organism* these together produce the teleological and conscious behaviour of the organism. Of course, much that goes on in the organism *is* purely physical. And there is constant conflict between the purely physical and the emergent behaviour, which is always teleological and in some respects conscious.

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Let us consider the bearing of this theory on the body-mind problem. Mind is regarded as emergent. Its behaviour cannot be fully described (even in theory) in terms of the laws of physical science. In some respects, of course, mental events are controlled by the physical events of the body; but in other respects these physical events are controlled by emergent mental events. For the understanding of the relation between mind and body, then, although we must, of course, study the effects of drugs and nerve currents on mental events, we must also study psychology on its own emergent plane. Fundamentally, however, the relation between body and mind must, in this view, necessarily remain unintelligible.

It is difficult to reach any clear conclusions about the value of the Emergence theory itself. There is obviously a sense in which mental events, such as thinkings and perceivings and desirings, cannot be described or accounted for in terms of the laws of any purely physical science. Those laws simply have no direct bearing on the mental. All the same it might turn out that (as the mechanists claim) the sequence of mental events was strictly related to physical events in the body, in such a manner that with nothing more than a full knowledge of the physical events we could *predict* the mental events. In the present state of our knowledge we cannot say whether this is so or not. Similarly, if it is true that all seemingly teleological behaviour studied by biologists can be explained away in terms of non-teleological physical laws, then biology can be reduced to physics. But if this cannot be done, if the concept of teleology is finally needed for the understanding of some biological facts, biology cannot even

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in theory be reduced to physics, which has no room for teleology. These are questions which cannot yet be answered. We must remember, however, that biochemistry, which claims to be a purely physical science, has recently made great progress. Very much that has seemed mysterious in growth and in behaviour has been shown to depend on chemical factors in the body. On the other hand, perhaps our biochemical knowledge of the relation between chemical reactions and mental states may turn out to be concerned, not solely with physical causal laws, but partly with the systematic reactions of the emergent whole itself to purely physical stimuli.

VIII. CONCLUSIONS, AND NEW QUESTIONS

We started by considering the problem of the relation of body and mind from the point of view of common sense. We assumed that a body and a mind were different things or substances, or made of different "stuffs," the one physical, the other mental. The problem was to explain the relationship between them. We have examined several different theories, but we have found none that is satisfactory. Nevertheless we may, I think, draw certain important conclusions, and raise certain further questions.

In the first place we must beware of the substance-attribute way of thinking, which distinguishes between a "thing" and its characters. All that we can profitably think about is the actually observed, or at least in principle observable, characters that make up the tissue of our experience. Of "substances" behind these characters we know nothing.

We have also seen that in respect of causation all that

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we can hope to discover is, not an inner necessity uniting cause and effect, but regular sequences of events.

The mind-body problem, then, consists in the need to state clearly the relation between the sequences of the physical characters that make up a human body and the sequences of mental characters that make up a human mind.

We have seen that it is not yet possible to describe this relationship at all satisfactorily. Throughout this discussion we have assumed that we do at any rate know what we mean by "body" and what by "mind." It is now time to recognise that this assumption is unjustifiable. Let us try to form a clearer view of what, in a man's actual experience, constitutes his body, and what his mind.

A man's body, as we perceive it, is a system of sensory characters, such as colour, shape, softness. This system, in spite of large fluctuations due to the voluntary movement of limbs, remains on the whole constant in form, and lies permanently at the centre of his perceived world. In fact, his body is made up of visual appearances, tactual "appearances" (as when he strokes or pushes his head with his hand), sensations of warmth, cold, pressure, pain, on the surface of his perceived body's shape or within its interior. The changeful three-dimensional shape of his body is really an abstraction, a formula derived from the spatial relations of this host of sensory characters, which constitute his body, and the relations of this sensory system to the other host of sensory characters, which constitute external physical objects.

Now all these sensory characters, both those of his

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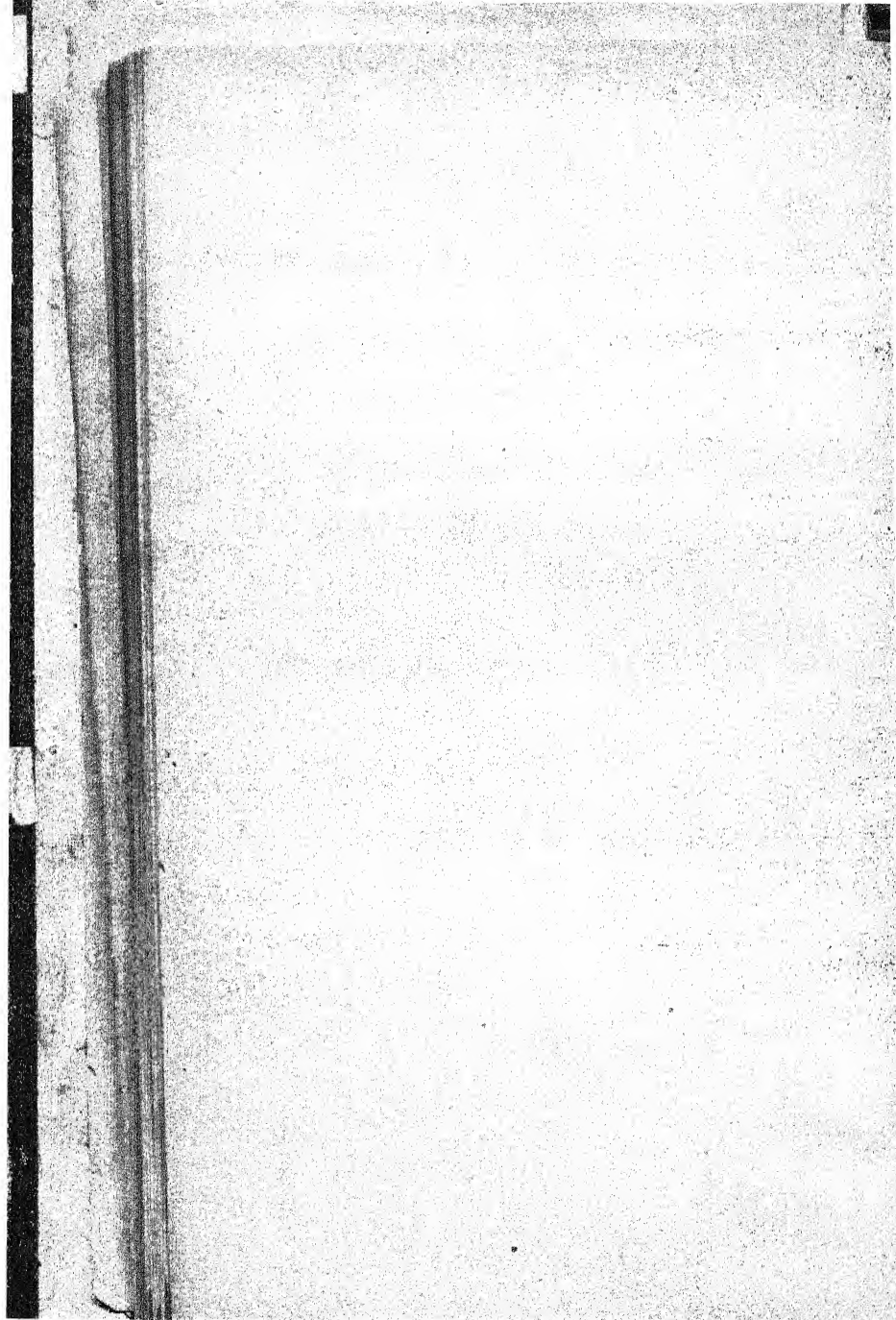
body and those of the external world (such as the coloured shape of a tree or a house that he is seeing) are also, in some sense, characters of his mind. They are all bits of his experience. In some way the physical world and the mind overlap. Of course, there is much in the physical world that is not in any sense part of his mind; for instance, all the objects that he is not perceiving or even thinking about. And there is apparently much "in" his mind that is not part of the physical world; for instance, his admiration or dislike of the perceived tree or house. His thinking, desiring, fearing, and his actual perceiving (as distinct from what he perceives) belong only to his mind. The phrase "in the mind" is misleading. Things are not *in* the mind as marbles may be *in* a box. There is, of course, a sense in which all that I experience is "in" my mind, within my mental horizon; but, more accurately, I reach out to, apprehend, have mental contact with, the objects of my experience. When John knows Jane, Jane herself does not become part of John's mind.

Evidently we have opened up some new and very obscure problems, which we may express in the following questions: What precisely do we mean by "a physical object"? What precisely do we mean by "a mind"? When a mind perceives a physical object, what precisely perceives what? And how should this relationship of perceiving be described?

These questions lead at once into a very formidable philosophical jungle. An immense amount of careful, subtle, hair-splitting work has been done upon them; and yet the upshot is far from conclusive. In a book like this it is impossible to attempt a detailed discussion.

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But we cannot leave the subject untouched. Some realisation of the problems, and some grasp of the possible tentative conclusions are necessary before we can go on to explore fields which have a more direct bearing on our central theme.



CHAPTER IV

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I. The common-sense account. II. Difficulties arising out of science. III. The Idealist solution. IV. The Realist solution. V. The solution of Logical Positivism. VI. Conclusions. VII. Postscript on Pragmatism.

I. THE COMMON-SENSE ACCOUNT

FROM childhood onwards we ordinarily assume that when anyone looks at a chair or at his own hand the object which he perceives really has approximately the shape and colour that he sees, and that it existed before and will exist after his perceiving it. In the naive view a rose really is red, a penny round, a stone hard.

Difficulties soon confront this theory. Is the rose red by night? Naive common sense would probably say, "Yes, but its redness cannot then be seen." Redness needs light to manifest it. If we point out that its manifested colour depends on the colour of the light thrown upon it, common sense will reply that to manifest its "true" or "real" colour it must be bathed in normal, neutral, white light. Then what of the green hills which in the distance look blue? The reply might be that they "really" are green,

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external world qualities that are caused by their own sense-organs?

We may feel some doubt about colour, but we confidently assume that, at any rate, things really have the shapes and sizes that we see. But what of the straight walking-stick that looks bent when we dip it into a stream? The visual bentness, we are told, is mere "illusion," produced by the intervening water. The stick still *feels* straight, though it *looks* bent. Touch is reliable, though vision sometimes misleads. Then what of the single nose which, between crossed fingers, feels like two noses? Evidently touch itself can mislead. Ah! But, says common sense, the fingers are crossed. The situation is abnormal.

In all these examples one particular appearance, in each case, is taken as the "true" or "real" appearance, and the rest are said to be rendered "illusory" by special conditions. Yet all the appearances are equally good appearances. If some of them do not really belong to the objects, how can we be sure that any of them do? What special power has white light to reveal the object's *real* colour, or uncrossed fingers to reveal the *real* nose?

Let us consider the classical example of a penny's appearances. We say that it *is* round, though in certain views it *appears* or *seems* oval. By what right is the circular appearance alone assigned reality?

Of course the flat surfaces of the penny can be *geometrically defined* as circular. Each contains a point that is equidistant from every point on the circumference, equidistant, that is, if we look perpendicularly at the surface, but not otherwise. However, if we test vision by touch, we find that the penny

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can be smoothly rotated between the finger and thumb. This would not happen if it were not circular. Once more, then, we refer the inconsistencies of sight to the judgment of touch. But we have seen that touch itself, though more constant, is not really infallible. Moreover, whatever the verdict of touch, so far as vision itself is concerned the oval appearances are just as good appearances of the geometrical circle as the circular appearances. Why should the appearance from one particular angle be "real" and the others not? Common sense would perhaps say that to secure a true visual appearance of the penny it is necessary to eliminate all distorting factors, all that lies "between" the object and us. We must get as "near" to it as possible. The hills (we are told) are not really blue, as they seem from a distance, but green, as they appear when we walk on them. The tilting of the penny, too, must be regarded as a distorting factor. But why, after all, should the angle of ninety degrees be less of a distorting factor than any other?

This principle of the distorting medium is certainly important, but its application is often arbitrary, and if it is pushed too far it leads to nonsense. It is arbitrary to choose one visual appearance and call it "real" merely because it happens to be the most convenient one to take as a symbol or a counter to represent the whole system of the object's appearances, as in the case of the circular view of the penny. On the other hand, the attempt to penetrate behind intervening media so as to grasp the very object itself may be pressed so far as to lead to results most bewildering to common sense. This is what happens when we consider perception from the point of view of natural science.

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II. DIFFICULTIES ARISING OUT OF SCIENCE

Science raises two distinct types of problem for the common-sense theory of perception, namely, those problems that spring from physiology and those that spring from physics.

It is fairly well established that sense-perception involves sense-organs and is intimately associated with certain tracts of the cerebral cortex. In seeing, light from the object is focused by the lens of the eye so as to form an image on the retina. In the minute light-sensitive rods and cones of the retina the light sets up chemical changes which in turn set up changes in the nerve fibres. Waves of chemical change pass along the fibres into the brain tract at the back of the head, which is the seat of vision. Clearly, what actually reaches this visual cortex must be very different from the stimulus which originally affected the retina. If the object really has the colours and shapes which we perceive, how do they manage to be transported by the chemical nerve current?

A further difficulty is raised by the fact that though we perceive such different qualities as colour, sound, pressure, taste, scent, warmth, cold, pain, the nerve current is probably of one and the same quality in every case. How does an identical nerve current transmit such different qualities?

It seems that all our efforts to secure a true appearance of the object, undistorted by intervening media, are bound to be frustrated by the necessary intervention of the nerve current and the sense-organs.

So much for physiology. Physics has other difficulties to raise. In its own way it has tried to "get

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at" the object itself, and has even claimed, in its nineteenth-century phase of optimism, to tell us what the object "really" is. The object, we have been told, is really a system of molecules, which are groups of atoms, which are electro-magnetic systems, wherein (it now seems) there is a ceaseless movement of excessively minute somethings that are not exactly particles and not exactly trains of waves, but rather like both. Particles of what? Waves of what? Seemingly of the potentiality of doing work, or (as some say) of sheer probability that something will happen.

Where now is the smooth, hard, coloured surface of the object? Where is sound? Where scent, taste, warmth, cold? It begins to look as though they were mere figments of the mind; and as though the object itself were qualitatively unknowable, and in form at once grains and ripples of the unknowable quality.

Other difficulties raised by science are connected with the nature of light. Light is not instantaneous. It takes time to travel. When we look at a star, we look at something which may have actually ceased to exist thousands of years ago. In what sense, then, can we be said to perceive the star itself? Strictly, all physical objects perceived by sight have already ceased to exist as present objects at least a fraction of a second before we see them. In a sense we see into the past.

In yet another manner light raises a difficulty. Colour, it seems, involves time. Things cannot have colour at an instant. The sensations of colour depend on *rhythms* of electro-magnetic vibrations. If the redness of the rose is a quality of the object itself, it must somehow be a quality which inheres in a

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also that the notion of material substances behind the perceived qualities of things was unnecessary.

Our "ideas" of primary qualities are in principle variable, like our "ideas" of secondary qualities. The size and shape of the penny, even its tactual size and shape (perceived by touch), vary with the condition of the observer's body. If his fingers are swollen the penny will seem bigger than usual. Size and shape vary also in relation to his previous experience. After handling farthings, pennies seem very large. Movement also is relative. When two trains are running abreast at different speeds, the slower seems to passengers in the faster to be moving backwards.

The theory that ideas "represent" material substances distinct from themselves is open to the objection that if we have no direct experience of things, if we never experience them save through the medium of ideas, we have no reason to believe in their existence. Also, if things do exist "behind the veil of ideas," we have no means of comparing the ideas with the things, and deciding that some ideas truly represent things and others do not.

Berkeley's main positive contribution to philosophy consists in the famous principle that "to be *is* to be perceived." It seemed to him incredible that any material thing should be able to exist unperceived. Accepting the principle, formulated by Locke, that all knowledge was derived from experience, he enquired if anyone ever had experience of any material thing that was not a perceived thing. The obvious answer was, No. Therefore we had no right to postulate unperceived things. He held that there were no "material

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substances" but only "spiritual substances," namely, ourselves and God.

He did not, however, believe that when a thing was not being perceived by any *human* mind it ceased to exist. He did not, for instance, hold that the foundations of a house ceased to exist as soon as they were buried and out of sight. The humanly unperceived things, he said, were perceived by God, in whose mind they continued to exist.

(c) *Phenomenalism*.—The theories of Berkeley were favourable to Christian orthodoxy, but they contained the seed of heresy. David Hume carried Berkeley's own principles to their logical and devastating conclusion. He agreed with Berkeley's criticisms of Locke, but he pointed out that they must be applied not only to the external world but equally to the self and to God. If we had no evidence of the existence of material substances beyond or behind appearances, neither had we evidence of a soul or spiritual substance at the centre of them. What was actually experienced or *given* in experience was simply a flux of "impressions" and "ideas," or, in more modern language, sensations and mental images. Though Hume distinguished between "impressions" and "ideas" (sensations and images), he did not suppose that sensations were caused by an external world, and images not. He distinguished between them merely by the greater intensity or vividness of sensations. Seeking to discover his "self," Hume found that he always came upon some particular experience, never upon that which *had* the experiences. Therefore, he argued, since all knowledge is derived from experience, we have no reason to believe either in physical substances or in

the spiritual substance which the self is supposed to be. And if a man has no reason to believe in his own self as a spiritual substance, neither has he reason to believe in other selves, or in God. For intellect unaided by faith there is nothing but the stream of experience.

With Hume the philosophical movement initiated by Locke seemed to reach its logical conclusion. Starting with the dualism of the perceiving mind and the perceived thing, it developed by way of Subjective Idealism into Phenomenalism, the theory that there is nothing whatever but the sequence of experiences, or phenomena.

(d) *Kant's Criticism of Phenomenalism.*—Idealist philosophers often seek to retain the essentials of Berkeley's doctrine while rejecting the unpleasant consequences suggested by Hume.

Kant agreed with Berkeley at least in believing that the whole knowable form or structure of the perceived world was a product of human experience. But he rejected Hume's contention that this world of phenomena was the sole reality. There was for Kant another reality behind appearances. With regard to the nature of the mind, he accepted Hume's criticism of Berkeley's belief in the individual self, but he protested that the concept of a stream of mere "impressions" and "ideas," wholly disconnected with one another, was false. An outstanding characteristic of experience is its unity. All the sensory elements of the present mental state are intimately related in a single experience. They are known *together*. And the actual character of each is largely determined by its relation to others. The present mental state, moreover, contains within itself knowledge of preceding states. It is

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what it is in virtue of past experience. To see an apple *as* an apple, we must have had previous experience of coloured shapes, and of touch and scent. In experience everything penetrates everything else.

To Kant it seemed evident also that in perception we were actually affected by something *other than* ourselves, for our perceptions come to us whether we desire them or not. Something, he said, forces them upon us. But the *manner* or *form* in which the reality appears to us, he said, is wholly an expression of our own nature. Reality is entirely unknown to us save in terms of our own sensibility. The "thing in itself" we can never perceive as it really *is*. All we can perceive is appearances of it, and the form and quality of these is our own creation.

Kant was not thinking merely of the physiology of sensation. He pointed out that everything perceived by us was perceived by means of, or in terms of, our own past experience, and in terms of certain fundamental categories, or fundamental potentialities of experiencing. These, he said, were inherent in mind itself. Not only sensory qualities and shapes but space itself, time itself, and causation, he believed to be creatures of our minds, not characters of reality itself. No character whatever, knowable to man, could be assigned to reality, which, in Kant's view, was simply the unknowable external cause of our conceiving phenomena.

Our experience of ourselves as finite centres of consciousness, as selves, Kant regarded as equally false. He agreed with Hume that we could not discover in experience anything which might be regarded as distinctively "the self." In criticising Hume's theory of

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the stream of impressions and ideas, Kant did not rehabilitate the self, save as an abstract principle of the *unity* of experience, and the equally abstract principle of *subjectivity*.

According to Kant there were two distinct worlds or spheres of being, one the "noumenal" world, the world of reality, which was wholly unknowable, the other the "phenomenal" world, the world of appearance, the sphere to which our knowledge applied, but in essence a world of illusion. For both physical appearance and the deliverance of introspection were given character by the mind itself.

Briefly, the main criticism of Kant's theory of perception and knowledge in general seems to be this. His unknowable "thing in itself" is unnecessary. The mere feeling that perception is forced on us by something other than ourselves is as likely to be a product of our own minds as anything else in our experience. Consequently we have no reason at all for believing in a "thing in itself," which is different *in kind* from the actual objects of our experience. And so we are once more back in Phenomenalism. All the same, Kant's protest against the sheer subjectivity of Phenomenalism was a step in the right direction. His mistake lay in setting a gulf between the known phenomena and the unknowable reality, for thus he re-introduced subjectivism. It is incredible that our experience should be all there is; but, further, there is no need to believe that the unexperienced is in principle unknowable.

IV. THE REALIST SOLUTION

(a) *Criticism of Idealism*.—"Realism" like "Idealism" has many senses. We are here concerned with

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Realism as a theory of knowledge, and in particular of perception. In this sense Realism starts with a denial of the first principle of Idealism, namely, that to be is to be perceived.

The defence of Idealism's central principle, it will be remembered, runs as follows. We never perceive anything that is not a perceived thing. Therefore we have no reason to suppose that unperceived things exist.

This argument, says the Realist, must be made more precise. *I* never experience anything that is not experienced by *me*. From this it might be argued that *I* have no reason to believe that anything exists that is not experienced by *me*. This theory, that my experience is all there is, is called Solipsism, and is very different from Berkeley's theory. Berkeley's argument points further than he was prepared to go. He clung to the belief in many things other than his own perceptions. He believed in things unperceived by him, though perceived by other selves, or by God. This was irrational. In effect Berkeley said: "Everything that *I* experience is a thing experienced by *me*. Therefore everything must be experienced by *someone*." The argument is illogical.

There is another fallacy in Berkeley's argument. Even if in my experience two things, namely, "what is perceived" and "my perceiving," always do, as a matter of fact, occur together, it does not follow that they are *necessarily* connected and *could* not occur apart. In my experience, of course, the perceived objects themselves and my activity of perceiving do always occur together. It does not follow that the objects *involve* the perceivings. Of course, this argument does not prove that the objects *do not* involve the

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perceivings, or that they *can* exist apart. But if *for other reasons* we incline to believe that they exist apart, this argument enables us to do so in spite of Berkeley. And we *have* other reasons, as Berkeley himself might have realised. Otherwise he would not have needed to bring in God to support the things that no man perceived.

The world of immediate experience, of sounds, smells, coloured shapes, tactual shapes, and so on is most intelligibly conceived as part of a much greater world with which it is all of a piece. Suppose that I plant a seed in my garden. It is no longer to be seen. According to the account of the Phenomenalist or the Solipsist, the whole truth is that certain events have occurred in the world constituted by my immediate experiences, my phenomenal world. After some days there follow the experiences known as "the appearance of a seedling." This may be followed at intervals (when-ever I go and look) by a series of experiences known as "the growth of a cabbage." So far as immediate experience is concerned there is no reason whatever for these fragmentary and disconnected experiences. But if we correlate them with the whole system of other people's experiences, comprising agriculture and botanical research, and if we conceive that in my absence unseen events were happening which *might* have been experienced, though actually they were not, we arrive at the concept of a germinating seed and a growing cabbage. Thus, though we do not *prove* the existence of a world independent of experience, we do give a rather more intelligible account of my fragmentary experience than the Phenomenalist's or the Solipsist's account.

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It is important to realise that what we are postulating is not an unexperienceable substance which has experienceable attributes, or an unknowable "thing in itself" upon which the mind mysteriously "projects" characters created by itself. We are postulating simply a sequence or tissue of objective events of the same kind as those which we do actually experience. We are not even postulating any sort of causation more inward or necessary than the observable regularity of the sequences of events. We are merely completing the fragmentary observed sequence by means of an unobserved but coherent system of events of the same order.

At this point it is perhaps well to mention an argument against Realism which has been derived from modern physics. It is said to be impossible, in principle, to discover both the position and the momentum of an electron in its orbit. For in trying to observe the electron's momentum the observer inevitably alters its position, and *vice versa*. The answer to this argument is that it is not his *observing* that affects the situation, but simply the impact of the "light-waves" to which it must be subjected if it is to be observed at all.

(b) *The Essence of Realism* is the conviction that the objects of perception are not created or altered simply by being perceived. In the Realist view experience is essentially a *relation* between the experiencer and something *other* than the experiencer; though, as we shall see, the special difficulties of Realism have often forced Realists to give very strange accounts both of the relation and of its terms. This central principle of Realism agrees with the common-sense theory of perception, and is therefore subject to many of the criticisms that we have already encountered in the

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common-sense theory. Somehow it must meet these criticisms more effectively than common sense can do.

(c) *Difficulties in Realism.*—The central difficulty of all Realist theories is this. If it is true that the object of experience is not created by, or even changed by, being experienced, how comes it that apparently we sometimes experience things that do not exist?

The walking-stick dipped in the stream "looks" bent and "is" straight. *Where* is the bent stick? In a dark lane we see a shadowy cow, which presently turns out to be no cow at all but a bush. The toper sees pink snakes that "do not exist." Dreams are "sheer figments of the mind." Imagination creates purely mythical beasts, like the centaur. We cannot escape the difficulty by saying that these objects are simply "ideas," which do not "correspond" with anything in the physical world. To do so would be to deny the essential principle of Realism. We should be setting up a veil of mental stuff between the perceiver and the world. If we postulate purely mental objects in illusion, we must allow them also in true perception, since there is no discoverable inherent difference between the objects of illusion and the objects of perception. But to allow that the objects of perception are mental is to be forced, step by step, through the positions of Locke and Berkeley into Hume's sheer Phenomenalism.

(d) *What we Perceive.*—Before trying to deal with this grave difficulty of error and illusion let us seek a clearer view of what we perceive when we suppose ourselves to be perceiving truly. We must also relate our findings to our scientific knowledge of physical objects.

I perceive a pear. I see it not merely as an area in

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my visual field, a pattern mottled in green, yellow, and red. I *see* it as a smooth-surfaced three-dimensional *volume* of a certain shape and at a certain distance. I vaguely perceive it also as fragrant and as internally wet and sweet. I can, if I will, distinguish between the characters which are given in sensation and those which are "imagery" recovered from my past experience.

If I approach the pear it appears larger. If I move round it, its perceived shape changes. Evidently, if we cling to the principle of Realism, we must believe that the perceivable shape of the pear itself consists of an infinite number of possible *views* from an infinite number of possible view-points. This is true equally of the pear's visual and of its tactual shape, save that for "views" we must substitute "touchings" and "graspings." No one of these visual and tactual "appearances" can logically have priority over the others. Of course we ordinarily say that the pear itself has one particular geometrical shape in the physical world; but what is this shape really? It is an abstraction, a mathematical formula, derived from the actually perceived host of visual and tactual "views." It is a formula by means of which other such "views," perceivable from other view-points, can be calculated.

The world presented to my sight and touch is thus a world of "views," or (in Bertrand Russell's phrase) of "perspectives." The actual views that I perceive can be correlated to form a vast but fragmentary system of views all centred on my particular view-point, which can be located in the abstract geometrical space. This fragmentary system I can complete by correlating it with a host of views which I am not having, but which

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could be had from an infinite number of possible viewpoints.

The physical world, according to this theory, is an immense system of these views or aspects, which exist whether anyone is perceiving them or not. In this world a physical object, say a pear, is a particular sub-system of aspects which are all correlated with a certain volume in the abstract geometrical space. This abstract volume is that which common sense regards as the location of "the object itself." But strictly, what is concrete is not the geometrical volume but the aspects. The geometrical volume is an abstraction. We must certainly avoid the theory that the sensory characters which make up the object are simply *on* the surface of its geometrical volume. The blue of a distant mountain is not on its surface. Neither is the greenness that appears in a closer view. Even its hardness is not strictly confined to its volume, for hardness is simply resistance to pressure, and presupposes something other than the unpenetrated volume itself. As Professor Whitehead has said (but many Realists reject his theory), sensory characters are not "simply located." They do not simply inhere in a particular place. They are essentially "in a place from a place." Not only the mountain's distant blue, but also its nearer green, and even the touched hardness of its rock, are essentially "there from here." This being so, the more we press forward to reach the very object itself, located in its geometrical volume, the more of the object we lose on the way, until at last we find we have nothing whatever but abstract volume.

If we penetrate within the volume all that we find is more views, more aspects, more appearances, not of the

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object as a whole but of its parts. And these, in the last analysis possible to us, are such ghostly appearances as electrons, protons, positrons, neutrons, and electromagnetic vibrations. Such abstruse objects we cannot adequately conceive in terms of our ordinary experience. In trying to conceive them we hopelessly misconceive them. As we have seen, they are thought of as neither particles nor wave-trains, yet something like both. But particles or wave-trains of what? We may try to conceive them as somehow consisting of sheer "pushfulness." Nothing else is discoverable in them. Indeed, even pushfulness ought not to be attributed to them. They are just movement. But movement of what? Of something altogether inconceivable. They are completely abstract, mere factors in a complex mathematical formula. Then what of the actual, concrete, characterful objects of experience? What of the mountain, the pear, the rose? And what of the limbs and heart and brain of the beloved? How can these be mere factors in a mathematical formula?

Clearly, in our attempt to strip off all that does not belong actually to the object itself, we have completely missed all that is actual in the object. It seems as though the object were everywhere *but* in the volume where it is said to exist. Take, for instance, one of the ultimate physical units studied by science, say an electron in one atom of the pear. It is not a minute thing in a particular region of the atom. It is a determination or influence pervading the whole atom. It is a factor in, and an expression of, a system. And what is the atom itself without its environment? It is essentially a member in a larger system. Without an environment it can neither express itself nor even *be*

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itself. The case of the whole pear or mountain or beloved is the same. Each is a factor in the world, a colourfulness pervading the world, and in turn a particular effect of, or expression of, the world's complex nature.

In case it is still thought that we are really misconceiving the whole matter, and that all these mysteries can be explained in terms of the substance confined within a certain concrete volume, and radiating effects into other such "located" substances, let us consider space itself. The very volume that the object is said to occupy, and from which it is said to scatter its effects, is something pervading the whole of space, is a system of possible views from every possible view-point, inside and outside the abstract volume. Even a volume is "in a place from a place." It is a hole in space. And you cannot have a hole without an environment that is *not* the hole. Space itself is nothing but the abstract system of all possible volumes, and each volume is a determination of the *whole* system.

(e) *An Analysis of Experience*.—Such, very roughly, is the world as it is perceived and scientifically studied. What is to be said of its relation to the perceiving and studying mind? Let us first catalogue the various factors which philosophers have sometimes supposed to be involved in experience. Some of these factors are denied by some philosophers, but let us begin by enumerating all the factors that have been suggested. We may summarise them as follows :

1. The *experiencer*, or experient, or subject. That which does or has or suffers experience, or enters into the relation of experience.
2. The *experiencing*, or act of experience, or relation-

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ship of experience, occurring between the experient and the object, whether in sense-perception or memory or thought or desire or enjoyment or what not.

3. The actually-experienced. The mind's actual contents in experience. The "mental content." That of which the experient is aware. The "truly" perceived cold, hard, wet slab, when a man is looking at a block of ice; and the "falsely" perceived pink snakes of the toper; and the cow that was "really" a bush; and the dream objects; and the creatures of imagination. In fact, the experienced object simply as a system of characters *in experience*. Some of these characters are sensed, some imagined. In the case of the bush-cow experience, a bush-like, but also cow-like, shape is given in sensation, and this is filled out with other, purely cow-like characters recovered from past experience.

4. The experienced as it "really" is, apart from the mind's true or false perception of it, the experienced as a factor in the universe beyond the experiencing mind. The block of ice as a physical thing. The physical bush that *looked* like a cow; not the cow that was an illusion.

According to Locke, the experient experiences only the mental content, not the material world. The mental content is composed of mental stuff, of "ideas"; and these "represent" the real objects. For Subjective Idealism there are no material objects; and the content is again mental. For Phenomenalism also there is no physical thing behind phenomena; but also there is no experient and no experiencing. There is only mental content, or the stream of experience, which is not to be analysed into subject, act, and object.

(f) *Some Types of Realist Theory.*—The only contention common to all forms of Realism seems to be that, although mental content is not all there is, there must be no fundamental distinction between mental content and the “real” object that is experienced. Content, however false, must be part of the objective world, not *simply* a creature of the mind.

The most radical type of Realism is that which has been advocated by the American New Realists and by Bertrand Russell. It is in many ways akin to Phenomenalism, but it allows that there is more in the universe than experience. Theories of this kind, which Russell calls “Neutral Monism,” describe the whole universe in terms of fleeting sensory elements (particular coloured shapes, noises, touches, and so on), called sense data, *sensa* (singular *sensum*), *sensibilia* (singular *sensibile*) or sensibles. These are said to be the only constituents both of the physical world and of the mind. These “neutral” elements or sensibles are said to be capable of being related together as two distinct kinds of system, namely physical objects and minds. Thus when I perceive a pear, a certain coloured shape enters into the system which is my mind; but it is also a member of the physical system which constitutes the pear. Someone else, perceiving the same pear, picks up certain other visual components of the physical system of sensibles which constitutes the physical pear.

My perception of the pear includes much more than the characters now present to my senses. Though I am not touching the pear, I perceive it as smooth, cool, softish. These characters I have sensed on other occasions, in association with other visual appearances of pears. On this occasion those past objects of ex-

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perience are brought into mental relation with the present sensibles which I receive from this particular pear. I vaguely apprehend those past "cools," "smooths," "softs" again now, without noticing their location in the past.

But we must beware of the word "I." In this type of theory the perceiver, the "experient," is simply the whole system of "my" past experience, which, in perceiving this pear now, is assimilating new material to itself. "Experiencing" is the relation between the whole system of "my" experienced objects and this newly-assimilated object.

In this type of theory, in spite of much that is of permanent importance, there are many serious difficulties. We are left wondering how a mere system of sensibles can, so to speak, "know itself together" as a single mind; and further, how this very strange sort of mind, which is entirely composed of objects and has no subjectivity, is capable of striving and feeling. I shall not here describe the ingenious ways in which supporters of theories of this type meet these difficulties. Instead, I shall try to show that the theory, in its extreme form, breaks down over the central Realist problem, namely error and illusion.

Let us take the case of the bush which in the dark lane appears as a cow. The vaguely cow-like and bush-like shape reinstates in my present consciousness certain past sensibles belonging not to bushes but to cows. Metaphorically, I see the past sensibles now, and fail to note their pastness. My error consists in ignorance. To believe in the illusory cow is to fail to see that the cow-like shape is not a complete cow.

This account of illusion is certainly correct up to a

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point, but is it the whole truth? Is error *simply* ignorance, or is it something positive, based on ignorance? Does not the error consist, not merely in failing to distinguish between the present and past sensibles, but in *jumping to an unjustifiable conclusion*? For the deluded observer does not merely say to himself (in effect), "Here are certain cow-like characters, along with certain bush-like characters." He says, "That is a cow." If the mind is entirely passive, is simply a "cross-section of the universe" (as some say), and nothing but a fragmentary bit of the world, how can it commit error at all? A mind that was purely receptive would be simply a faithful recorder, a camera. And a camera, we are told, cannot lie. Of course, in a sense a camera often does lie, and flagrantly; but the lying is really the work of the observer's mind when he falsely *interprets* the photograph. Similarly in the bush-cow incident, the mind does, of course, passively receive a sort of "composite photograph" of past and present; but this photograph itself does not lie. Nor does the error consist in passively accepting the photograph. The error consists in actively *misinterpreting* the data to mean much more than is actually given, namely to mean a present cow.

Impressed by these considerations, some Realist philosophers, for instance the Critical Realists of America, have reintroduced in one form or another the concept of mental activity. For them, experiencing is not simply a passive relationship but a positive act of assertion or judgment, which may fall into positive error. In doing this, they have also to reintroduce, though in a would-be realist manner, the distinction between the mental content and the physical thing.

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In this view the bush-cow illusion must be described somewhat as follows. The mind passively receives certain vague bush-like but also cow-like shapes, and these recall past experience of cows. The mind thereupon actively asserts this physical object to be a whole cow. The mental content, then, consists of the universal character "cow," which is asserted to belong to this present physical object.

This account raises the whole question of the status of universal characters, such as *redness*, *cowishness*, *justice*. Are there any such things? Or are they sheer figments? Let us for the present assume that there are such things as universal characters. Then according to the theory under discussion, error consists in asserting that a certain system of universal characters belongs to a certain object when in fact it does not. The theory is clearly in danger of falling into the old dualism of ideas and things, and thence into Phenomenalism. If in the case of illusion we distinguish between mental content and the thing, we must also do so in the case of true perception. This looks like abandoning Realism. Can this defeat be avoided?

Let us begin by temporarily agreeing that the mind does first apprehend universal characters only *in* particular events; but let us allow it the power of reverting to past instances of such universals. We must not suppose that it *detaches* the universal from the particular situations in the past and turns it somehow into "idea." We must conceive that the mind somehow reverts to the past situation, and apprehends again the character of that situation, or rather the character common to many situations of a certain type. But in saying this we raise very serious questions about the nature of

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"the mind" and about the status of universals. Granting that there are such entities as universals, and that particular instances of them are somehow discoverable *in* particular situations, what sort of being have they? How can a universal character be common to, or identical in, a number of instances? Further, if the mind apprehends patterns of universals, which may be either true of the "thing" or false, are we not once more putting a veil between the mind and the actual world?

Evidently this less radical kind of Realism, though it avoids the difficulties of the more radical kind, has difficulties of its own, and is in danger of collapsing into Dualism and Phenomenalism. Evidently, also, we cannot properly judge it till we have formed a clear opinion about universals. This in due course we shall attempt. But first we must consider another kind of theory of the External World, a theory which is in some respect akin to Realism, but is said by its advocates to avoid Realism's pitfalls, along with all other pitfalls of epistemology. This it does by the simple denial that any kind of epistemology is possible.

V. THE SOLUTION OF LOGICAL POSITIVISM

The theory of Logical Positivism is one which I discuss with great diffidence, for I came upon it late in life, and have not the equipment to judge it authoritatively. This, perhaps, is enough to account for my deep, though perhaps ill-founded, conviction that it is one of those many brilliant achievements of specialism which, though immensely fertile, are weakened by inadequate basic assumptions.

As we have seen, the theory accepts actual sense-

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experience, and refuses to accept any entities that cannot in theory be verified in sense-experience. Like Phenomenalism, it regards sensations as simple events not analysable into a knower, a mental act, and a known. It agrees with Berkeley and Hume in holding that sensations (or "sense-contents," as it sometimes calls them) cannot exist unperceived. Or rather, it says that the proposition "Sense-contents exist unperceived" is *meaningless*, since it can never be verified in sense-experience. Thus Logical Positivism denies one of the principles of Realism. On the other hand, and surprisingly, Logical Positivism agrees in a manner with Locke, since it allows that material things do (in a very peculiar sense) exist unperceived. Material things, it says, are not *composed* of sensory characters, or of sense-contents; they are said to be "*logical constructions out of*" sense-contents. This does not mean that they are mere mental figments. They are what they are, independently of any particular mind's perceiving. And so, in a sense, they exist unperceived. But what they are is of the nature not of actualities but of possibilities. The Logical Positivist agrees with John Stuart Mill's dictum that physical objects are "permanent possibilities of sensation." In calling a thing a pear we name a complex and systematic possibility of sensations, past and future. The word "pear" is a symbol definable in terms of all the *possible* sensations commonly said to be sensations "of a pear." This *possibility* exists whether anyone sees the pear or not. But it is not to be interpreted as a hidden "something" *behind* the sensations. It is simply the systematic manner in which sensations of a certain class have occurred and may be expected to

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recur. The definition of "a pear" is a formula which is true of this class of sensations.

In exactly the same way the definitions of the objects of science, such as atoms and electrons, are formulæ descriptive of possible sensations, namely the sensations resulting from the hosts of experiments on which atomic and electronic theory is based. The status of atoms and of pears is identical. Both are objective possibilities of sensation. They are not hidden causes of sensation.

The Logical Positivists refuse to tell us what causes these possibilities. Causation is for them simply the observed invariable regularity of sense-experience. About any reality behind sense-experience it is impossible, in their view, to say anything that is not nonsense. Our knowledge is strictly confined to the world of sense-experience. To have any genuine meaning at all, a statement must refer to this world. Questions and statements about non-sensible causes of sensation are mere verbiage.

In considering any theory we must seek clear consciousness of its particular emotional bias. In this case the bias is in favour of what may be called "intellectual puritanism," or the longing to be independent of all irrational beliefs. Intellectual puritanism is horrifying to the mind that craves metaphysical illumination, but it is seductive to the intellectual puritan himself. Indeed the passion for scepticism may sometimes induce an irrational conviction that a theory must be true simply because it is intellectually puritanical. We must try to avoid this prejudice no less than its opposite. The only relevant question is this. Is the theory that perceived objects and scientific objects are

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merely "logical constructions" really an adequate account of our experience of them?

Before accepting the theory we should have to be given a precise idea as to what a "logical construction" really is. But I shall not pursue that question. It is sufficient that a "logical construction" is a *formula* derived from experience, and useful for the prediction of future experience of the same type. If this is correct, certain very awkward consequences seem to me to follow from the theory that physical objects are logical constructions.

If physical objects are logical constructions out of sense-experience, so are minds. The logical defence of my belief in other minds must be derived from sense-experience of their bodies. Logical Positivism unhesitatingly agrees that minds are logical constructions, not only "other minds" but "my mind." From certain factors in sense-experience I logically construct "physical objects," from other factors I construct "other minds," and from yet other factors I construct "my mind." Those parts of sense-experience which are the ground of the logical construction of "my mind" are those (whatever they be) in virtue of which I talk about *my* feelings, *my* desiring, *my* thinking, and so on. Now according to the Logical Positivist I have precisely the same kind of sensory ground for the logical construction of "other minds" as for the logical construction of "my mind." According to him "other minds" are logically constructed solely out of my perception of the behaviour of other human bodies, and "my mind" is constructed solely out of my perception of the behaviour of my own body. But is this ingenious theory strictly true? I do not "construct" "my mind"

out of public data available both to me and to other people observing my behaviour. I "construct" it out of a very special kind of data. My knowing-feeling-striving is matter of immediate acquaintance, for me, but not for others. They may *infer* it from my observable behaviour; but they do so only by analogy, from acquaintance with their own knowing-feeling-striving. Similarly I, for my part, may *infer* "other minds" from observation of the behaviour of other bodies and the analogy with my own behaviour and my own knowing-feeling-striving. But from observation *alone* I cannot construct other minds, but only robots. "Other minds," in fact, cannot conceivably be verified in sense-experience. The proposition that there *are* "other minds" is therefore meaningless. "Other minds" are mere "metaphysical entities," or pseudo-entities. In fact, the logical outcome of Logical Positivism is Solipsism. I am aware that Logical Positivists deny this; but I cannot see that they do so with reason. They claim that "the only distinction between a conscious man and an unconscious machine resolves itself into a distinction between different types of perceptible behaviour" (Ayer). But this is not true. By saying that another person is conscious I do not *mean* merely that he observably behaves purposefully. I mean that he *experiences*, that he, like myself, knows-feels-strives. I have no access to his experience; my own is constantly with me. No doubt it is very difficult to say precisely what this introspective "awareness of my awareness" really is, but to deny its existence, and to say that I know my own experiencing in the same manner as I know the experiencing of others is not to clarify but to confuse thought.

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If it is true that "other minds" are something more than logical constructions out of sense-experience, more than formulæ, then physical objects may also be so. The fact that we have no idea what character they have apart from sense-experience is no logical ground for asserting that they are *merely* possibilities of sense-experience. They are complexes of experienceable characters lying both within and without our experience. This, so far as I can see, is the core of the matter. In some sense, which we do not pretend to be able to state clearly, physical objects are to be thought of as *actualities* (not mere possibilities) extending beyond the system of human experience. This being so, the Realist account of them seems to me on the whole the most plausible.

The same argument applies to scientific objects, such as electrons. But since the scope for error is immensely greater in respect of these than in respect of perceivable objects, we can never (in the present state of science) be sure that the official account of scientific objects is more true than false. Moreover, scientific objects cannot be conceived in terms of the characters of sense-experience. They have not colour, sound, smell, taste. Even shape and hardness belong to them, if at all, in a very metaphorical sense. Consequently, though they are actualities, we are almost wholly ignorant of their nature.

VI. CONCLUSIONS

This is not the place to pursue the problem of perception into all its ramifications. Here we are concerned only with the bearing of philosophy on life, and we must be content merely to gain some realisation of

the confusion of our thought about the nature of perception, and to note certain tentative conclusions which seem to be justified.

The upshot of this chapter seems to be briefly as follows. In the first place we may, and indeed we must, cling to the central principle of Realism, and believe that there *is* a world that exists whether anyone perceives it or not. This world is not in principle unknowable, though, of course, all that we know of it is very fragmentary and slight. When we perceive, we really do perceive something of this objective world. This something turns out to be very different from the common-sense account of it, and even more different from the scientific account of it. But we have reason to believe that, whatever the precise logical status of the perceived world, it is not sheer illusion. It is all of a piece with the vast unknown, not a veil between us and reality. We may be confident that reality is not the quality-less abstraction, the fog of mere numbers, the haze of probabilities, that is the upshot of physics. It is at least as rich and colourful as the shreds of it that we perceive. And it contains, amongst other things, the living and sometimes lovely forms of our fellow human beings. No doubt, the perceivable aspects of physical objects in the external world are inextricably tangled up with our own sense-organs and nervous systems. No doubt, what we perceive is partly an expression of our particular dispositions and past experience. But what we perceive is not simply fictitious. Moreover, our own sense-organs and brains are themselves physical objects, part of the great tissue of physical existence. And though in our simplicity we may perceive things all jumbled together that are in

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important manners distinct, so that we form a very grotesque view of reality, still when, for instance, a man perceives his beloved, the form that he perceives really is a character of the objective world, though its relations to other factors in the world may be very difficult and perhaps impossible to state clearly. Similarly, though he himself, the perceiving mind, is not the simple thing that he seemed, and is in fact inextricably tangled up with the rest of the world, he is not a mere phantom, or a mere abstraction from the unity of his experience. At a much later stage of our enquiry we shall try to discover in more detail what kind of a thing he is.

POSTSCRIPT ON PRAGMATISM

Had space permitted, this chapter would have included a discussion of the Pragmatists' account of sense-perception. I append a note as a starting-point for study.

The Pragmatists' main contention is that knowledge affords, not insight into the objective world, but merely formulæ useful for action. Thus the atomic theory is true simply in that it leads to successful practical operations. In respect of perception, Pragmatists seem to divide into two camps. Professor F. C. S. Schiller holds that a perception is true or false simply as a sign-post leading to success or failure in our enterprises. It does not reveal the actual character of the objective world. This view leads to Subjective Idealism and, I believe, to Solipsism. William James, on the other hand, admits that perception begins with the reception of *something* which is objective to the perceiving mind. His position is therefore at bottom Realist.



CHAPTER V

REASONING

I. The scope of two chapters. II. What happens in reasoning.
III. The problem of logic. IV. Universals and particulars.

I. THE SCOPE OF TWO CHAPTERS

BEFORE we can pass on to the subjects through which philosophy bears most closely on human life, namely, the subjects connected with personality and community, we must face a problem which has been growing more urgent throughout the preceding chapters. It is a problem on which the whole value of philosophy depends, and it is logically the most fundamental of all intellectual problems. It is the problem of the scope and limitations of intellect.

We have been enquiring into the status of the external world. We have seen that in perception, if there *is* any independent object at all, it must be very different from the "physical thing" of naive perception, and that scientific objects also must be very different from the view of them offered by science in its less philosophical mood. If perception and science turn out to be superficial and deceptive methods of viewing objective reality, what of intellect itself? All along we have assumed that intellectual enquiry really is in principle valid, that it can in principle yield truth about the subject of study, that there really is an objective difference between true and false.

We shall first examine the actual process of reasoning. This will lead us to discuss the problem of universal characters and their particular instances, a

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problem which became urgent in the preceding chapter. We shall then try to form a clear idea of the meaning of truth and the nature of verification. In the next chapter we shall discuss the actual scope and limitations of human reasoning. We shall then at last be able to explore more luxuriant country.

II. WHAT HAPPENS IN REASONING

The nature of all intelligent behaviour is clearly seen in Professor Köhler's experiments with chimpanzees. For instance, he put some packing-cases into their cage so that in their play the apes might become familiar with the potentialities of these man-made articles. Some days later, having starved his apes to give them a hearty appetite, he hung some fruit from the roof of the cage, just too high for the apes to capture it by jumping. After many futile antics, a bright member of the group deliberately brought a packing-case to the scene of action, set it under the fruit, mounted, and secured the prize. On another occasion, when the fruit was hung much higher, some of the animals even discovered how to build a clumsy tower of cases on which to stand.

Let us analyse this simple example of intelligence. The successful ape had already discovered in play the fact that packing-cases could be climbed. Hungry, he recognised the suspended fruit as a means for hunger's satisfaction. The height of the fruit frustrated normal fruit-getting actions, such as stretching and jumping. Intelligence consisted in apprehending the problem as one to be mastered by climbing, and in relating this "climb-needing" situation with the recently experienced "climbability" of packing-cases.

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The mental process in the ape's mind might be very roughly expressed thus: "Fruit! Can't reach. Must climb. Can't. Packing-cases can be climbed, and shifted. Better bring packing-case and climb."

This bit of behaviour is typical of all genuinely intelligent behaviour, even the most abstract intellectual operation. Always there is: (1) a desire (in this case for food); (2) a situation in which no familiar or instinctive act will fulfil the desire (fruit out of reach); (3) analysis of the situation and attention to its relevant factors (climb-needing); (4) recall of means to cope with such situations (climbability of packing-cases); (5) appropriate action (fetching the case and climbing).

Einstein, in inventing the theory of Relativity, behaved as the chimpanzees behaved, though with greater subtlety and in relation to a more complex problem. Schematically we may describe his great achievement as follows: (1) His motive was the desire to construct a comprehensive physical theory. (2) Owing to certain awkward facts, no familiar theory was adequate. (3) He analysed out the essential characters of the problem. (4) With these essential characters in mind, he recalled a hitherto unused mathematical system which seemed to bear on his problem. (5) By means of this mathematical system he worked out the theory of Relativity.

III. THE PROBLEM OF LOGIC

(a) *Contingency and Necessity*.—In both the preceding examples the mind was confronted with certain "brute facts," in the one case, unreachable fruit, and in the other, recalcitrant "data" of astronomical observation. It also saw certain connections between these

facts and others. Reasoning is always "about" something given, something other than the actual operation of reasoning. It works on "data" which, so far as this particular act of reasoning is concerned, are simply accepted, not proved. And though sometimes its data may themselves be partly products of past reasonings, those past reasonings themselves must have operated on merely given and unprovable facts. In the last analysis reason deals with data that are simply "given," and are not susceptible of proof. All the immediate data of sense-experience (and therefore the whole superstructure of theory that natural science builds thereon) are of this unprovable kind. We can see no logical necessity in the events of the external world. They just happen. In technical language, they are "contingent," not "necessary." It is true, of course, that they happen in a more or less systematic manner, and that we expect them to continue doing so, and that, on the *assumption* that they will continue to happen as before, we can construct very complicated formulæ by means of which we can predict how in detail they will "*probably*" happen. But we can see no *necessity* that they should do so. Stones might all leap from the ground to-morrow. Heated water might freeze. Pigs might sprout wings. If these things happened we should not, if we were wise, simply adopt the attitude of the man who said of the ostrich, "There's no such bird." We should laboriously begin to collect the data for a whole new natural science.

Contingent facts, then, are simply given, and must be accepted, after due scrutiny to determine precisely what *is* given, and what its actual relation is to other given facts. Logical necessity itself is also in a sense simply

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given, and must be accepted after due scrutiny; but *what* is given in the case of logical necessity is of a different order, and it is given in a different manner. What we grasp when we seize upon a logical connection is always some fact of the type, "*If A is true, then B must be true also.*" Thus "*if the law of gravity is true, then this stone, if I let it go, will fall.*" Or again, "*If a definable law of 'anti-gravity' were true, then so-and-so would happen.*" Or again, "*Given certain fundamental arithmetical postulates and axioms, then $7 \times 4^2 = 7 \times 2 \times 8.$* " Or "*Given the postulates and axioms of Euclidean geometry, then the internal angles of a plane triangle are equal to two right angles.*"

Neither of these last two truths is self-evident to average human intelligence, but in each case the premise can be shown to involve the conclusion by means of a process of reasoning. The steps of this process consist of intuitive advances from one "self-evident" truth to another. This principle of implication by linked self-evidences, or logical necessity, is essential to all reasoning.

There is a perennial dispute between the champions of intellect and the champions of intuition. Let us never forget that intellect itself is intuitive through and through. Not only does it work upon data which must be intuitively apprehended; its actual operations also are intuitive. Each apprehension of self-evidence is a flash of logical intuition. Let us now consider in more detail the nature of self-evident logical necessity.

(b) *What is Logical Necessity?*—Logic is generally regarded as the science of true thinking. Is logical necessity, the essential "therefore" of our thinking,

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simply a necessity in our thinking itself; or is it a necessity in the things about which we think?

There are serious difficulties in the theory that when we experience logical necessity or self-evidence we are simply observing a necessary connection between objective facts. If this is the case, how is it that people sometimes disagree about self-evidence? Is it possible to have an illusory logical necessity? If so, how are we to distinguish between true and false logical necessity? All we can do is to check each fresh bit of seeming necessity by reference to other parts of the system of rational thought. Does it fit into the system or not? If not, we must look very carefully at it again to see if it still seems a logical necessity; and at the system, to see if there is any way by which it can accommodate the awkward intuition. And if the intuition does still seem self-evident, and the system still recalcitrant to it, we must choose between the isolated intuition and the system. And since the total system of our thought is overwhelmingly better established, we shall provisionally reject the isolated experience.

One thing we need not do. We need not roundly deny the validity of logical thinking in those spheres in which it does prove effective.

Nor need we suppose that because we cannot *prove* the validity of the principle of logical thinking, therefore it is unsound. In a hot bath I feel warm. I cannot prove that warmth is happening. It just happens. Proof is not needed. Similarly with logical thinking. In principle its validity needs no proof. We cannot logically use reason itself to prove reason's validity; nor to disprove it. For the principle itself would have to be used to construct the very argument

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that seeks to defend or destroy it. Only in particular instances, when our logical intuitions seem to conflict with one another, need we doubt and seek proof; and then, of the particular instance, not of reason in general.

Logic certainly is the science of true thinking. It does in some sense study a necessity in our thinking. But this is not the whole story. When we use reason upon the external world (as the chimpanzee and Einstein did) it very often proves effective. Whether the world is systematic through and through or not, it certainly contains a good deal of system. Things do with great accuracy behave in a regular and logical manner. It does *seem* as though there were, for instance, some kind of necessary connection between the falling of stones and the mass of the earth and the movements of planets and stars. In fact, it seems, at least on the level of common sense, reasonable to hold that logical necessity does actually in some sense hold good not merely of thoughts but of things. We have no obvious reason to deny it, and some reason to believe it, since action based on the belief is often successful.

Further, it seems at least plausible that the mental disposition toward logical thought should have been evoked in us through the impact of a world whose structure was itself logical; a world in which a thing cannot both be and not be, and in which two and two must make four, not five.

(c) *Logical Positivism and Necessity*.—The tentative account of logical necessity which I gave in the preceding section was in principle Realist. We must now consider the radical criticism brought against this kind of theory by the Logical Positivists. According to

them the mysterious thing, "logical necessity," is not a characteristic of the objective world but is simply the consequence of the *definitions* which we ourselves formulate to describe the various subjects of our thinking. Thus $2 + 2 = 4$ just because we have so *defined* the symbol $2 + 2$ and the symbol 4 that they have identical meaning.

The Logical Positivist begins by distinguishing in an orthodox manner between two kinds of statements, or propositions, namely, those which are statements of fact, and are not logically necessary, and those which are purely logical, and necessary. The former are generally called empirical propositions, the latter "*a priori*" propositions. Examples of "empirical" propositions are: "Water flows down hill," and "Your behaviour annoys me." Examples of *a priori* propositions are: "Twice two is four," and "A man's father is his son's grandfather." Empirical propositions are statements of observed fact. They are not expressions of a necessary connection between the subject and predicate. *A priori* propositions, on the other hand, though they may be indirectly based on observation of fact, are statements of logical implication. In them the predicate merely *analyses out* certain logical implications of the definition of the subject. They are therefore said to be "analytic" propositions; whereas empirical propositions are said to be "synthetic," because in them the predicate, so to speak, puts things together, adds new facts to the subject.

Many propositions are seemingly empirical, but really *a priori*. From their ambiguity arises a danger that the necessity in them, which is in fact merely a logical consequence of a definition, may seem to be a necessity

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somehow belonging to the objective world. The proposition "All men are mortal" may be interpreted either synthetically or analytically. If the proposition means simply to state the result of prolonged observation of the fate of members of the human race, it is empirical and synthetic. There is no necessity in it. But if we *mean* by the word "man" a mortal animal of a special kind, then it is analytic and necessary. Its predicate is contained in its subject's definition. The empirical sense of the proposition records an actual addition to knowledge; the analytic sense adds nothing to knowledge, but merely draws attention to one factor included in the definition of "man." In fact, like all *a priori* propositions, this proposition (taken in its *a priori* sense) is tautological. If the two senses of the proposition "All men are mortal" are confused, we may be tempted to think that mortality is necessarily involved not merely by the *definition* of man but by the rest of human nature; which is not true. It is merely an observed fact about men.

If the Logical Positivist is right, a famous problem raised by Kant turns out to be unreal. It seemed to Kant that mathematical propositions, such as $5 + 7 = 12$, were at once necessary *and* synthetic. They seemed synthetic because apparently they really do add to knowledge, because 12 is not simply *identical* with $5 + 7$. On the other hand they were obviously necessary, since the subject logically involved the predicate.

The Logical Positivist claims to undermine this problem by asserting that " $5 + 7$ " and "12" are simply two ways of saying one and the same thing, or two names for the same thing. If this view is correct, then the whole of mathematics, which we regard

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(according to our temperament) as a majestic edifice either of pure thought or of objective necessity, consists merely of ways of saying more clearly what was already obscurely said in the basic propositions on which the great science is based.

Not only so, but *all* deductive reasoning, we are told, is of the same type. This is not to say that it is worthless. If our minds were incomparably more lucid than they are, mathematics (in this view) would indeed be worthless, because we should see at a glance all that the basic definitions contained. We should therefore take no further interest in the subject. But since we are merely human, and our insight is limited, laborious calculation is needed for the discovery of the full content of the basic definitions. Similarly with all other kinds of deductive reasoning. When we have by repeated observation and experiment established a scientific law (say the Law of Gravity), we can deduce from it the sequence of future events. The law itself is simply a summary of past observation, a definition of a principle which is observed to have held good in the world of fact up to the present date, and is expected to hold good in the future. We say in effect, "*If* the law is true, *then* so-and-so will happen." The mysterious necessity in this reasoning lies, we are told, simply in the fact that the particular expected event is of the kind already included within the definition of the law.

Thus logical necessity is reduced strictly to a purely linguistic phenomenon, namely to *tautology*, to the fact that different symbols may have identical meanings.

(d) *Criticism of Logical Positivism.*—The foregoing account of logical necessity is to my mind very impressive; but with the diffidence proper to the mere amateur

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in logical analysis, I suspect that it falls seriously short of the whole truth of the matter. The definitions which we call scientific laws are, of course, formulæ which are true of sense-experience. The law of gravity is not merely a definition implying certain verbally diverse but logically identical consequences ; it is a description of the way in which certain kinds of events have been observed to happen in the experienced world. This description is repeatedly corroborated by succeeding experiences. So far as it is verified, it plainly does in some sense describe a real factor in the experienced world. It is not *merely* a form of words. Regarded linguistically, logical necessity may appear as sheer tautology ; but regarded in its application to the experienced world it appears, not merely as the fact that the same meaning may be *expressed* in different words, but as the fact that in the actual world the same identical principle may *be* in different manners. There is, of course, no observable *necessity* that the principle must continue to hold good ; but, so long as the general character of the world appears not to have changed, particular events may reasonably be expected to occur in certain predictable manners. The tautology, so to speak, is not merely a tautology of language but an identity of fact occurring in diverse kinds of situations.

Such statements would be heartily condemned by the Logical Positivists. Clearly, all turns on the word "principle." Logical Positivists deny the existence of such vague entities. But in the present connection the word "principle" does not mean a mysterious and occult "something" *behind* the experienced world. It means simply an *identity of character* inherent in a number of diverse events, a "universal character" in

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many "particular instances." We shall presently enquire whether there is any justification for the belief in such entities, which Logical Positivists reject. Meanwhile, let us assume that there *is* an identity in all cases of gravitation, as there is for common sense an identity in all cases of warmth, or animality, or justice. An all-powerful intelligence might see at a glance this identity in all gravitational events, as we see the identity in all cases of "warmth"; but human intelligence can only by toilsome observation and calculation gradually discover this gravitational identity.

Let us now revert to the Logical Positivists' account of mathematics. It is necessary first to form a clear idea of number. For our purpose it is enough to say that number is the distinctive character of groups. In saying this we assume that there can indeed be identity of character in a number of particular things or events; that, for instance, in all couples there is a certain identity, and again in triplets, and so on. This assumption we shall consider critically in the next section. Meanwhile, let us make use of it. "One," then, is the character common to all single things, whether stones or days or desires, or what not; "two" is the character common to all couples; "three," to all triplets; and so on. Let us note also that "one" is a character of every group as a whole, since it is a *single* group, however many units it contains. Thus we can have a single couple, a single triplet, a single century. The same applies to "couple." We may have a couple of couples, or of triplets, or centuries. And so on with all the numbers.

In the first instance *some* of these characters must be observed in actual concrete groups of things. The

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basic operations of mathematics, adding and subtracting, must also, in the first instance, be carried out with actual objects, and observed. But once we have discovered that by adding a single thing to a single thing we get a couple, we have opened the way to the whole of mathematics, and could in theory construct all the mathematical systems without further experiment. In fact, mathematical reasoning is "necessary," not "contingent."

The Logical Positivists say that mathematical necessity consists in sheer tautology. Are they right? For simplicity, we will consider the proposition $2 + 2 = 4$. In a sense $2 + 2$ does mean the same thing as four. But in a sense it does not. Strictly what it means is that if you take a couple and then another couple you will have a quadruplet. The *operation* of "adding two to two" is not the same as the *result*, "four." The operation of taking two pills twice a day is not the same as the operation of taking four at a time. Now clearly the symbol $2 + 2$ means not merely a number but an operation performed with numbers. The result of the operation $2 + 2$ is the number 4. Numerically the symbols $2 + 2$, and 4, and $1 + 3$, and 2×2 , and so on, have identical significance, but "operationally" they have not.

Apparently, then, the attempt to explain away the seemingly objective necessity of mathematics by reducing it to tautology of symbols has failed. Tautology there is, but there is something else. And the problem lies not in the tautology but in the something else. Mathematical necessity consists in the fact that certain operations with certain numbers produce certain numerical results. Of course, this happens because, in

spite of the difference of operation, there is a numerical identity in both sides of the equation. But this identity is not, in the final analysis, a linguistic identity; it is an identity of actual number, an identity of character in any group of things with which the respective operations are performed.

Clearly this vague talk about "character" forces on us a discussion of the whole problem of "universal characters" and their "particular instances."

IV. UNIVERSALS AND PARTICULARS

(a) *The Distinction between them.*—We have seen that thinking involves noticing the identities and differences in the characters of things. To say "This rose and that flag are both red" is to do more than be aware of a red flag and a red rose without recognising that they are both *red*, that they both have a certain identical character called "red." The rose and the flag are two things, or events, consisting in each case of a number of characters; and one character is identical in them both. Does this kind of statement describe the matter truly? What is the relation between a particular *instance* of a character and the *universal* character of which it is an instance?

Clearly, the characters that constitute any particular thing or event are in a sense more than the particular example of them. Each of the thing's characters seems to have some sort of being beyond the thing in which it occurs, since it occurs in other things.

The red of this rose is indistinguishable (let us suppose) from the red of that flag. An identical something occurs in two situations, a something in virtue of

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which we relate the two situations, and contrast both with that green grass.

Does this distinction between a universal character and its particular instances rest on a distinction in the nature of reality, or is it merely a consequence of the nature of our thinking, or our speaking?

(b) *Types of Theory*.—Let us glance at some of the answers that have been made to this question.

In the first place there are theories which accept the reality both of universals and particulars, and attempt to state the relation between them.

In one view, originated by Plato, universals have a special kind of being of their own, quite apart from their instances. They "subsist" in a peculiar sphere out of relation with time and space. They are the perfect types or patterns or forms to which particular things approximate, or in which they participate, and without which they could have no features. In this view the pure universal character, "redness," subsists independently of all red things.

The Greek word which Plato used to signify a universal was the original of our word "idea"; but to Plato it meant an objective "form," not a mental state. On the other hand, the Platonic "idea" or "form" did mean something more than mere character. The "form" of a thing was the *ideal* or perfect pattern toward which it somehow strove. A man, for instance, participated to some extent in the form of manhood; and also in some sense he strove toward the perfection of this form. The supreme form was the form of the Good. From this all other forms were derived. God himself was subordinate to the form of the Good.

This introduction of perfection and striving toward

perfection is irrelevant to the problem of universal characters. It overlooks the fact that the idea of perfection is derived from human need. Thus the ideal form of the circle, to which actual circles merely approximate, is "perfect" simply in relation to our need for good wheels or for a useful geometrical concept. The child's rough drawing of a circle does not itself aspire to approximate to the ideal of circularity. In fact, circularity is simply an abstraction from our experience of actual round objects. This (as I shall argue later) does not mean that it is a mere figment of our own minds; but it does mean that we know the character of circularity only in its particular instances, and that we have no evidence of a distinct realm of purely logical entities.

Mediaeval philosophy, which was largely derived from Plato's pupil and critic Aristotle, inclined to conceive the Platonic forms as actually mental ideas in the mind of God. The Good was good *because* God willed it. And all created things were embodiments of the ideas that God conceived.

In both these types of theory universals are regarded as more fundamental than the concrete things which exemplify them. To use the old phrase, both theories put the universals *before* the particular thing (*universalia ante rem*). In this view, even if there were no red things, and never had been any, redness would still "subsist."

In another kind of theory universals have no being at all save *in* their instances. Redness is simply a character which is observed in all red things (or events). Manhood is in men. Apart from actual men, manhood has no being at all. This theory, that universals are

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simply in the thing (*universalia in re*), has somehow to bridge the gulf between the identity of the universal and the separateness of its instances.

All these theories accept the reality (in some sense) both of universals and particulars. Even the mediæval view that universals were ideas in God's mind allowed that at least they were objective to the minds of men.

But from this position it is easy to pass to the theory that universals are creatures of our own minds, and that they have no objective being. We are said to form in our minds "concepts" or "general ideas" about things. This is the theory of universals *after* the thing (*universalia post rem*) or conceptualism.

Two other kinds of view have to be recorded. First there is that which denies the being of universals entirely, preserving only particulars. In this view there are not even such things as general ideas in the mind. What actually happens is that we use one and the same *name* for similar things or similar characters in things. Redness is just a name, and a name is just a noise or a mark on paper. This is the theory of "nominalism."

Some philosophers have gone to the other extreme and denied the reality of particulars, preserving universals alone. In this view, a concrete thing, such as a particular stone, or a tree, or Oliver Cromwell, is simply a very complex system of universal characters, of all the characters that go to make up this individual thing. Not only is it claimed that Oliver Cromwell is a system of universals occurring in a particular historical context; but also that even his historical relationships are universals. For instance, the date of his birth is a universal character belonging to *all* events that happened before one set of events and after another.

Further, we are told that he himself is *constituted* by his relations to other things, by their effects on him and his reactions on them. He *is* what the environment makes of him, and what he does to the environment. Even the shape of his body is the shape as it affects other things, and his own and other people's minds. No particular thing, it is said, is fully real. It involves a context. And the simpler and less self-complete the thing is, the less "real," the less concrete and more abstract it is. Thus an electron is less "real" than an amoeba, and this than a man; and a man is less "real" than a community of men. The only completely "real" thing is the Whole that comprises all things. For this alone (according to the theory) is a self-complete system of universal characters.

Thus we arrive at the Idealist's theory of the "concrete universal." A distinction is made between a relatively more abstract universal, such as "redness," and a relatively more concrete universal, such as "this red patch," which is redness combined with certain other universal characters and universal relations. A particular man is a very much more complex (and therefore concrete) universal. The British nation is more concrete still. The only *fully* concrete universal is the universe itself.

Such are the main theories of universals and particulars. I shall examine the two extreme theories, and endeavour to show that both universals and particulars must somehow be retained. I shall then summarise a theory which seems to me to give a credible account of their relation.

(c) *Impossibility of Denying Particularity*.—If there is no such thing as particularity, two exactly similar

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systems of character must be in fact one and the same system. There is no *meaning* in saying that there are two of them. This is the theory of "the identity of indiscernibles." The theory assumes that even the relationships in which a thing stands are themselves universal characters, and are moreover intrinsic to the thing itself; in fact, that the thing is *constituted* by its relationships. Oliver Cromwell is the sum of his intercourse with the world. As we have seen, there is a sense in which even Cromwell's bodily shape is constituted by its relations to other volumes. If this theory of relations is granted, clearly there logically cannot be two identical Cromwells in the same universe, since they could not have the same relations with the rest of the universe. Nor could there be two identical stones.

But there is a serious difficulty in the theory that things are *constituted* by their relations to other things. If all things are thus constituted, all things exist, as it were, "by taking in each other's washing," and nothing in fact exists at all. We may admit that *our knowledge* of a thing is wholly constituted by our knowledge of its relations to other things, but that the thing *itself* is thus constituted we must not allow. Or rather, since in one sense a finite thing certainly does seem to be constituted by its relations, we must expect to find some other sense in which it is not. If things are constituted by their relations, it is equally true that relations are constituted by things. They are essentially *relations* of things. Or, since the word "thing" is in bad odour in philosophy, let us substitute the word "event."

But to return to the problem of universals, we must

try to see the whole matter from a fresh angle. Is not the theory that denies particulars merely playing with words? What we actually experience is particular examples of universal characters. This rose, that flag, and that nose, we say, are all "red." Redness is the character in respect of which these particulars are identical. Of redness unparticularised we know nothing, save by our power of *abstracting*, of attending to the identity of red things while ignoring their differences. It is true that the only way in which redness can be particularised is by "entering into" particular situations or relationships with other characters; but "entering into" is metaphorical. Of redness apart from particular situations we know nothing. It is of the very nature of redness to be particularised. Particularity is as essential to it as universality.

Observing one red thing after another, and attending to their identity of character (and their difference from green things) we abstract the universality of their redness, and "hypostatise" it, or treat it as a self-complete thing. We think of redness as something other than this red and that red. In fact, we set up the universal and the particular as two independent "things." And having done this we find it impossible to relate them. In despair we have to abolish either one or the other. Thus we may actually come to think of the universality of red as in some manner the whole reality of red. But this is unnatural and artificial, and arose through the initial mistake of detaching the universality of red from its particularity in its instances.

(d) *Impossibility of Denying Universality*.—If, on the other hand, we retain particulars and deny that universals have any being at all, we land ourselves in

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another set of difficulties. According to this theory "red" is just a name, and a name is a kind of behaviour which we adopt in relation to a certain class of situations; and "green" is another name, for other situations. Each class of situations is made up of many particular members, and there is nothing whatever which can be called the "universal."

This view lays itself open to a simple criticism which, so far as I can see, vast ingenuity has entirely failed to answer. In virtue of what distinguishing mark do we assign all red things to one class and one name, and all green things to another? If there is nothing in respect of which all dogs, in spite of their differences, are identical, and distinguishable from all cats, how do we know which animals to call "dogs" and which "cats"? Similarly, if there is nothing in respect of which all couples are identical, and, again, all triplets, and so on, how do we know what to put into the class of couples, what into the class of triplets, and so on?

Further, what is a name? It is a noise or mark or action of a special *kind*. The noise "dog" is only a name in virtue of the fact that all instances of this noise have an identity of character, are in fact instances of one and the same name, and distinct from other names.

We saw that the denial of particulars arose from the hypostatisation of the universality in characters. We now see that the denial of universality arises from the hypostatisation of particularity in characters, the assertion that a thing or event is *nothing whatever* but its particularity.

Similar objections can be brought against the

theory that a universal is a "concept," a mental thing, made of the stuff of the mind itself. If that is *all* it is, how do we know which concepts to apply to which things? The things must have similarity and difference, and so must the concepts.

(e) "*Distributive Unity*" of *Universals in Particulars*.—In some sense, then, we must retain both universals and particulars. But we must avoid cutting them adrift from one another, and regarding each as an independent thing. Then what are they, and how are they related?

Let us begin by insisting that there is nothing whatever in a particular thing (or event) save characters, and that these characters have universality, that they can occur identically in more than one instance. On the other hand, let us insist that these universal characters have no being save in their instances. The problem, then, is to state the relation between these two abstractions, namely, the particularity and the universality of a concrete character.

The following remarks are based on the theory of Professor G. F. Stout, according to which the being of the universal simply *is* the "distributive unity" of a character in many particular instances of the character. Thus the universal character "redness" is not a disembodied abstraction or ideal form, inhabiting a timeless realm of pure being, and mysteriously conferring itself upon its instances. But neither is "redness" a mere figment of the mind, or a mere noise. On the other hand, a particular existent "red," say in this rose, is not a completely isolated thing without objective relations (of similarity and difference) with other particulars. But neither is it describable wholly in

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terms of its universality. "Redness" just *is* the identity of character *in* all red things. It is not above them or before them or between them. It consists, let us say, of "the respect in which all red things are identical." It is the *distributive unity* of all red things.

It may be objected that this theory does not really solve the difficulty, and that we must still ask *how* this identity of a single something (red) in many instances can be. But the question is improper. The difficulty arises through stating the problem wrongly at the outset, through cutting universals and particulars apart and hypostatizing both of them. All that a theory can be expected to do is to describe the facts of experience faithfully; and this, we may claim, our theory succeeds in doing.

POSTSCRIPT ON TRUTH

Some readers may feel the lack of a discussion of this subject. I therefore append a note, as a sketch-map of the territory.

When we say that a statement is true, we generally mean that, in some sense, it *corresponds* with some fact other than the statement itself. Idealists, however, maintain that the truth of a statement or idea is constituted by its *coherence* with the total system of knowledge. Pragmatists hold that any object (such as a word, a sign-post, a flag) may be used as an idea, may assume the *office* of "idea," in so far as it serves as a symbol or guide for our activities. The truth of the "idea" is simply its successful functioning in that capacity. Logical Positivists insist that a statement is true only if it can be *verified* in sense-perception.

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In this respect they and the Realists agree with common sense, though with many qualifications.

It is important to distinguish between the *meaning* of truth, which, I submit, involves "correspondence," and the *test* of truth, which is very often "coherence" with the established system of human experience.

CHAPTER VI

THE SCOPE AND LIMITATIONS OF REASON

I. Natural Science. II. Irrational determinants of thought.
III. Irrationalism. IV. The place of reason.

I. NATURAL SCIENCE

(a) *What Scientists Do.*—Having formed some idea as to the nature of reason, we must now consider the scope and limitations of actual human reasoning. In our day reason's most spectacular achievement is natural science. How does the scientist go about his work? What sort of truth can he tell us?

It may be objected that these questions concern science more than philosophy. But philosophy is concerned with every subject, or a special aspect of every subject. Certainly it has much concern with science. Some modern philosophers go so far as to define philosophy as "the logic of the sciences." Without agreeing with this limitation of philosophy, we must agree that philosophy at any rate involves a study of the logical basis and structure of science.

What, then, does the scientist do? All human activity springs from complicated motives. The guiding motive of any particular scientific worker probably includes, along with sheer intellectual curiosity, such ulterior motives as the will to shine in his profession, the will to serve the community, and (in capitalistic societies) the urgent need to secure a livelihood by selling his skilled labour as dearly as possible.

For one reason or another a scientist's attention is directed to a particular science, such as physics or

biology, and to some highly specialised field of study within his chosen science, such as the breaking-point of metals, or the inheritance of characters in cereals. Most scientific work to-day is very highly specialised. All the more obvious fields of research have already been at least roughly and often minutely mapped, and a subtle technique, appropriate to a special field, equips the worker for enterprises which formerly would have been quite impossible.

Let us consider the form of that technique so far as it is common to all sciences. Let us take as an example the formulation of the law of gravity. When things are let go, they fall. How fast do they fall in varying circumstances? Does their weight make any difference to their speed? Pioneering, the scientific mind made a vast number of observations of falling bodies, and devised a mathematical formula which would enable the behaviour of future fallings to be predicted. It was found that they moved, and might be expected to move, with an acceleration of thirty-two feet per second every second. The colour, temperature, odour, etc., of the falling bodies were found to be irrelevant. Their weight and shape were relevant only in relation to air-resistance, and irrelevant to gravitation itself.

We may summarise the nature of all scientific enquiry as follows. Whatever his ulterior motives, the scientist's immediate aim is to *describe how things happen* in his particular field of enquiry. He wants his description to be as simple and handy as possible, and as coherent as possible with other scientific descriptions. He seeks some principle, or preferably some precise mathematical *formula*, in terms of which he can explain his problem, or rather describe his data. But

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first he must procure clear and significant data. He therefore *analyses* the crude facts, distinguishing between those that seem relevant and those which seem irrelevant. He discovers how to make crucial *observations* and, if possible, *experiments*, to help him to get a clear view of what actually happens. Whenever possible he *measures* the significant factors in his data. Factors which seem not to be significant for his purpose he simply ignores. He imagines *hypothetical descriptions*, or *hypothetical laws*, and tries these out; until at last he discovers one which compendiously describes the whole mass of data, and enables him to *predict* the future course of events.

(b) *Philosophical Problems Arising out of Natural Science*.—This procedure confronts the philosopher with a number of problems. What precisely is a scientific law? Clearly, as we have already seen, it is not a law with binding force. There is no "must" about it. At most it describes how events are observed to happen. But if this is so, by what right do we use the law for prediction of future events? Thus we raise the problems of the validity of inductive reasoning, the nature of causation, of probability, and the issue between determinism and indeterminism.

Another very difficult problem is raised. How far is the method of analysis reliable? How far can we discover the truth about natural events by analysing them, and ignoring all those aspects which seem irrelevant? Thus we come once more upon the question of the scope and danger of abstraction. We also encounter the issue between pluralism and monism. Which is the more significant and useful view, that the world consists of many independent things in relation, or that

it consists of one thing, and is a seamless whole, such that nothing can be truly said about its parts without reference to the whole? Some, but not all, of these problems we shall discuss in this chapter.

(c) *Scientific Laws*.—We have already seen that scientific laws are not binding laws. There is no necessity in them. For all we know, they may be violated at any moment. They are at best descriptive. Some philosophers hesitate even to allow that they are descriptions, in the ordinary sense of the word, for the following reasons.

The observations from which a law is derived are, of course, erratic. Instruments that measure time and space are never perfectly accurate. The manipulating and observing experimenter himself introduces further complications. Strictly, the law derived from the observations does not describe the actual data but a simplified principle to which the data, taken as a whole, approximate. The law, in fact, is a sort of graph, *near* which all the past data fall, and all future data may be expected to fall.

The Logical Positivists, bearing this in mind, insist that a scientific law is not really a proposition about a set of data; for it is not a proposition at all but only a *formula* by means of which propositions about actual events may be constructed. They say this because they are anxious not to attribute semi-mystical "principles" to nature. Rightly they seek to avoid thinking of abstractions, such as gravity, as mysterious "things" or "spirits" controlling nature. Rightly they insist that a scientific law is more like a rule of grammar than a sentence. It is a human dodge for simplifying description. Other dodges *might* work equally well.

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But surely there is an important difference between a mere formula and a formula that is a scientific law. The law, after all, is derived from events, and is predictive of events. As such, it is descriptive of nature, in the sense that it describes not particular events but a set of relations between certain kinds of events. In fact, it describes a complex universal character. Of course, if universals are nothing but the names we "give" them, then a scientific law is nothing but a complicated word. But if, as I have maintained, universals have real being as "distributive unities," then a scientific law is actually a description of a universal character inherent in a large class of events.

The fact that scientific laws can be true or false, that they can be tested in sense-experience, shows that they really are, in *some* sense, descriptive of nature. The fact that there may be different and equally good, or even better, ways of formulating laws raises no more difficulty than the fact that "It rains" and "Il pleut" are equally good descriptions of a certain kind of natural event. These statements are no less true, though less precise, than the statement that H_2O , in drops of a certain size and frequency, is descending on the earth.

When Newton, in a flash of creative imagination, guessed that there was a connection between the laws descriptive of falling bodies and of the movements of the planets, he set about testing this hypothesis by further observations and calculations; and discovered that his original formula did, in fact, describe the principle common to both sets of events. When Einstein, intrigued by certain minute discrepancies between prediction and observation, devised a much more subtle

formula to comprise much more than gravitation, he did not overthrow Newton's law. He merely invented a more exact "language" by which to describe more precisely what Newton's language had described less precisely. Both laws, however, are descriptive of nature. But Einstein's is the more precise and comprehensive description.

(d) *Scientific Objects*.—So much for scientific "laws." What of scientific "objects," such as electrons, protons, neutrons, positrons? Are they to be regarded as real factors in nature or as mere formulæ, useful for scientific prediction? Obviously very little is known about them. They are mere calculable potentialities for affecting our instruments. An electron, for instance, is (in this view) a very abstruse formula descriptive of a very subtle "permanent possibility of sensation." It is a mere system of probability. We can assign to it no quality known to us. The little that we do know of it is often self-contradictory. An electron is apparently to be conceived as at one and the same time a particle and a system of waves. Nevertheless, the logical status of scientific objects is at bottom the same as that of ordinary unperceived physical objects, such as the earth's metal core, or the stony centre of Cleopatra's Needle, or a man's own brain. If these are real factors in nature, so are electrons. The only difference is that our knowledge of scientific objects is reached by a much more indirect method, is far less detailed, and cannot be accurately conceived in terms of familiar sensory characters.

On the other hand, if scientific objects are mere formulæ, useful for prediction of perceptible events, but not to be regarded as objective entities, then

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ordinary unperceived physical objects must be regarded in the same way. Not only so, but perceived physical objects, too, though of course not pure sense data, must be regarded as mere formulæ, useful in action, but no more.

This view we have rejected. In doing so we pledge ourselves also to a realistic view of scientific objects.

(e) *Probability*.—It is fairly clear that scientific laws are compendious descriptions of *past* sensory experience, or at the very least formulæ from which such descriptions can be derived; but by what right do we use them also for prediction of *future* sensory experiences?

It used to be said that the first assumption of all science was the "uniformity of nature," the conviction that, wherever and whenever events occur, the same fundamental physical laws *must* hold good of them. To-day it would rather be said that though the scientist hopes for and seeks regularity, he makes no assumption that it must exist. An immense amount of regularity has been discovered and is found to hold good from day to day. But we know no reason, inherent in the nature of things, why this regularity should continue. At any moment gravitation might cease, or the sky might roll back and reveal the Celestial City, or sheer chaos might supervene.

We have a strong expectation that none of these things will happen. The "probability" of their happening, we say, is infinitely small. What is this "probability"? Is it simply the degree of the intensity of our sense of expectation, or rather of the strength of our mental *habit* of expectation, which becomes more and more insistent the more often a

familiar sequence of events is experienced? Or is probability in some manner objective in nature?

Sometimes probability can actually be calculated and assigned a percentage. In dice-throwing we can easily calculate the probability that the six will turn up so many times out of so many throws. Put to the test of experience, the prediction proves the more accurate the greater the number of throws. If it were to fail completely, if the six were to turn up much more often than we expected, we should at once infer that some special influence was at work. Perhaps the dice might be biased, or the throw itself nicely calculated to turn up sixes.

If we knew *all* the relevant data for any particular throw (the centre of gravity of each of the dice, the initial position of both, the strength and direction of the movement, and so on) we could predict the result of that throw without leaving any more to probability than is left in all statements about the world of fact. As it is, we know only (let us say) that the dice are not appreciably biased, and that the throws are genuinely haphazard. Each side of the die, we say, has as good a chance of turning up as any other. Since there are six sides, each side has one chance in six for any particular throw. The probability is that, out of every six throws of one die, one throw will produce the coveted side with six dots on it. This statement is clearly not simply a statement about our expectation. Whatever anyone expects, the statement is in some sense true. Yet it is not in the ordinary sense a statement of fact. Actually the six *might* turn up six times in succession, or not at all in a score of throws. Then what *is* the statement about?

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It is a logical statement about the implications of a hypothesis or definition. *If* the die is unbiased, and the throw is random, and *if* the accepted principles of dynamics still hold good, then no side has the advantage. The reasoning is "necessary" in this hypothetical sense. But there is no observable necessity in its application to any particular group of throws. Indeed, strictly it does not by itself apply to particular throws at all, since it is incomplete. In every particular case the issue is determined strictly by the dynamics of the situation. But the formula is useful, because over a large number of throws the idiosyncrasies cancel out. So long as the conditions hold good, the formula is a true description of a universal principle which has had instances and may have others.

On the face of it there is a great difference between the probability that a six will turn up in a particular throw and the probability that the laws of dynamics themselves, or any natural laws, will hold good. The one probability can be calculated, the other not. And in the one case possible interferences can at least be conceived and studied; in the other not. But the underlying principle is identical in both cases. In each, certain factors are known, others are not known. In the case of the die, what is demanded is prediction of a particular result, and for this prediction the known factors are insufficient. Only a general principle can be established. In the case of a natural law, a general principle is all that is demanded; and for this the knowledge that we have has proved adequate. But, of course, in both cases the great unknown makes certainty impossible.

(f) *Determinism and Indeterminacy.*—In the nine-

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teenth century the growth of rationalism combined with the success of science to suggest that all physical events were connected together in one great causal system. Every physical event was regarded as a necessary effect of preceding events and a cause of succeeding events. Mental events in human minds were thought either to be links of a non-physical kind in the causal chains or to be mere consequences of purely physical causation. They were supposed not to be themselves causally efficient.

Although in the physical sciences determinism was generally accepted, in the biological sciences a long-drawn-out war raged over it. The usefulness of organs and of modes of behaviour strongly suggested that in some way purpose was a controlling factor in biological causation. The determinists clung to the concept of mechanism, and declared that natural selection was enough to explain the process of evolution. The vitalists insisted that natural selection was negative, and that some positive and teleological or purposeful drive, some "entelechy," or "élan vital," was obviously at work.

Into this controversy we need not now enter. All that we need do is to try to see clearly what is at stake. The issue can be stated in terms of purely descriptive law, without any reference to underlying forces, whether physical or teleological. Are there, or are there not, some sequences of biological events which cannot even in theory, even if we had all the relevant data, be fully described by the formulæ of physical mechanism, and which in fact involve a teleological infringement of the purely mechanical course? To use an analogy, are there points at which the stream,

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instead of taking the line of least physical resistance, actually gathers itself together and leaps over barriers? And are we justified in holding that these leapings can be described only by reference to a goal?

The issue of the controversy must be left to the scientists. Perhaps, like so many controversies, it will be decided not by the victory of one side but by the discovery that the alternatives have been wrongly conceived, so that neither is true and neither is false.

Let us note, however, that even if the teleological view is correct, determinism (though not, of course, mechanism) might still hold good. Particular events, though not determined solely by preceding physical events, might still be determined. They might still occur *systematically* in relation to determining factors. They might show a teleological bias that was constant and regular; and in relation to this bias prediction of future events might still be possible, in the manner in which a man's act may, up to a point, be predicted from knowledge of his purpose.

On the whole it is probably fair to say that though mechanical descriptive laws have proved increasingly useful in biological research, the issue between teleology and mechanism is not yet decided. The steady advance of biochemistry strongly suggests that in time all biological phenomena will be accounted for in terms of physical mechanism. On the other hand, it may also turn out that thoroughgoing mechanism in the abstract field of the biological sciences is not, after all, incompatible with teleology in more concrete studies.

Strangely, while the biological sciences have tended to provide increasing evidence of determinism and even of mechanical determinism, physics itself has been

shaken by a serious attack of "indeterminacy." It would be folly on my part to pretend that I have more than a superficial understanding of this scientific controversy. Consequently the reader must take my comments on its philosophical aspect as merely a starting-point for further study. If he wishes to pursue the matter he should read, not only the popular works of Eddington and Jeans, but the penetrating criticism of them in Professor Susan Stebbing's *Philosophy and the Physicists*.

The trouble seems to have had two sources. One, we are told, was the complete failure to find any reason why an electron should change its orbit at one time rather than another; the second source of difficulty lay in the discovery that in principle there was no possibility of knowing both the position and the velocity of an electron in its orbit. If one was known, the other was in principle unknowable.

The common-sense reaction to these troubles was simply to attribute them to our ignorance. If we knew enough, it was said, we should be able to predict the electron's leap; and we should be able to correlate its speed and its position.

But the eminent physicists pointed out that this was sheer assumption. We were so accustomed to discover system in nature that we irrationally took it as certain that system *must* hold throughout. When at last we stumbled upon a fundamental arbitrariness in physical events, we could not recognise it, but regarded it merely as a case of veiled determinism. Instead, we should have recognised that, after all, at bottom nature was not systematic. The ultra-microscopic events within the atom contained a factor of sheer arbitrariness.

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ness. No doubt in the mass, in "macroscopic" physics, these arbitrary events average out and yield the systematic, predictable events from which the theory of determinism was derived. But when we look more minutely into the matter, determinism (they said) turns out to be illusory.

To enforce their argument the opponents of determinism cited the analogy of life-insurance. The actuary is able to predict that so many people of a given age will die each year, though the death of any individual is unpredictable. From a host of accidents a statistical law of probability emerges, by means of which prediction is possible.

Some have found in this supposed arbitrariness of physical nature an argument for free will in human beings. The bogey of physical determinism, they say, is destroyed. If physical events themselves are at bottom arbitrary, they cannot impose determinism on the mind. This, however, is a very unconvincing argument. A man's behaviour consists of physical events of the "macroscopic," not the microscopic, order; and therefore, even according to this theory, should be subject to the determinacy of "macroscopic" physics. Putting the matter very crudely, we may say that what the champions of free will must establish is not that the individual electrons in a brain have "free will" but that the single mind of the man has "free will."

But quite apart from the question of free will, what bearing have these arguments on the problem of determinism in physical nature? From the point of view of common sense the fact that there is system on the "macroscopic" physical plane seems to imply system also on the ultra-microscopic plane, even if we cannot

yet discover the laws of that system. The analogy of the actuary was misinterpreted. His generalisations would not hold good unless the individual deaths, though unpredictable, were as a matter of fact systematic. Generalisations about deaths from road accidents, diseases, and suicide would be impossible if the individual deaths were not in fact determinate instances of general principles—physical, biological, psychological, social. Similarly, if the behaviour of electrons was really indeterminate in detail it would prove indeterminate also in the mass. And whatever is the truth about the behaviour of individual electrons, it is certainly true that in the mass, or on the “macroscopic” scale, their behaviour is determinate in the only sense in which any matter-of-fact is ever determinate, namely, that in very many cases it can be predicted and subsequently verified with great precision. Of course, there is no discoverable logical *necessity* in their behaviour, or in any actual events. But science has established a huge system of exact statistical laws about their behaviour; and, though these laws are not necessary, they have an almost infinite degree of probability.

Much confusion arises from the ambiguity of the words “determined” and “determinism.” If determinism involves *logical necessity*, then clearly we have no right to say that physical events are determined, since we know of no logical necessity in the sequence of events. Even if determinism involves merely *causal necessity*, we have now, according to Professor Stebbing, no right to attribute determinism to physical events, since in the microscopic foundations of physics causal laws have given place to statistical laws, necessity to probability. (But surely this is nothing

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new.) If, on the other hand, determinism involves merely *determinate or systematic or regular behaviour*, then the new developments of physics do not disprove determinism, since on the macroscopic level and even on the sub-atomic level there is an immense amount of regularity and predictability. It is important to emphasise this point since the works of Eddington and Jeans tend to give a different impression. As Professor Stebbing has pointed out, the new concepts of physical science do not show that there is anything indeterminate or arbitrary in physical nature. There is nothing *lawless* in the basic phenomena of physics.

The upshot seems to be that recent developments of physics have no special bearing on the philosophical problem of determinism. Independently of these developments it is recognised that all scientific laws are descriptive laws, not necessary laws. They describe observed regularities in the spontaneous course of events. At most they can only *suggest* a determinism which can never be proved. Sub-atomic physics does nothing to diminish the suggestion.

(g) *The Value and Danger of Science*.—It is obvious that natural science has given man extensive knowledge and great powers. It is equally obvious that those powers have been used unwisely; and that the knowledge which science has given has in some important respects led not to wisdom but to blindness, folly, destruction, and grave peril to civilisation.

The method by which science went to work was that of attending to those aspects of the world which could most easily be observed with accuracy, and ignoring the rest. Roughly, it studied the movement of material things, and whatever was clearly related with move-

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ment. It ignored "secondary qualities," such as colour and sound, save as symptoms of movement. It also ignored mental facts, such as desiring.

Thus in time was built up the amazingly complex system of the physical sciences; and, along with this, industrial power. Meanwhile, with high confidence in his new explorative technique, man applied the concepts which had proved so useful in the study of lifeless matter to the study of living matter and of mind. By observation and analysis he strove to single out the determining factors of vital and of mental behaviour, with the expectation that these could be explained in terms of the laws of matter in motion. He succeeded at least to the extent of discovering many important and unexpected ways in which behaviour depended on obscure physical factors in the body or in the environment. It seemed clear that in time the dream of the materialist would be fulfilled, and everything would be thus explained.

I shall consider Materialism in more detail in a later chapter. Meanwhile, we must note that the theoretical and practical triumphs of physical science led to an unjustified confidence in it as a key to the metaphysical understanding of the universe.

II. IRRATIONAL DETERMINANTS OF THOUGHT

(a) *False Reasoning*.—How is it that false reasoning ever occurs? What happens in it? What are the influences that tend to vitiate reason? Is it true, as some say, that it is doomed to failure in all its more ambitious enterprises? Is it reliable only in the practical sphere?

Let us first try to see clearly what happens in false

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reasoning. In a sense all false reasoning springs from ignorance and rashness. This is true equally of false *probability* reasoning, in which a reasoner ignorant of certain relevant facts may rashly assert a conclusion as probable on insufficient evidence, and of false *necessity* reasoning, in which a reasoner ignorant of the precise meaning of a definition may rashly deduce consequences that are not, after all, implied in the definition. In each case there is ignorance and a rash act of "jumping to conclusions."

The ignorance may be due either to the fact that (in probability reasoning) the reasoner has never come upon the relevant data, or has not understood their relevance; or (in necessity reasoning) to the fact that he has never come upon or never properly understood the definition.

But also the ignorance, and the rashness, too, may be due to psychological influences in his own mind. These influences may have induced him positively to *ignore* the relevant data, or to *misinterpret* the definition. One psychological influence that may have this effect is sheer haste. All reasoning, as we have seen, is undertaken to fulfil some need, practical or theoretical. If the need for a solution of the problem is very insistent, or is not restrained by the impulse for caution and thoroughness, hasty and inaccurate reasoning may occur.

This kind of psychological distortion of the reasoning process through haste and superficiality may be regarded as a special case of a large class of distortions due to the influence of desire.

(b) *Reason and Desire*.—The wish may be father to the thought. Desire that a certain conclusion should

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be true, either for sheer haste or for the pleasantness of the conclusion, may blind the reasoner to facts which should induce him to reject it. Or again, the desire may persuade him to imagine a cogency in arguments that are in fact irrelevant or worthless. We all know in our own experience the temptation to allow this to happen. We know also the devastating discovery that we *did* on an earlier occasion unwittingly allow desire to vitiate our reasoning, even though at the time we refused to admit that this was so.

Still worse, psychologists assure us that we are constantly swayed by motives of which we have no consciousness; and that much of our reasoning, if not all, consists of finding plausible excuses for beliefs or actions that are needed by our unconscious nature.

That men are often swayed by unconscious prejudice is obvious to onlookers, though not to themselves. The psychologists have but extended our knowledge of this danger. Though there is good reason to be sceptical of some of the doctrines which particular psychological schools assert about the status and content of "the unconscious," we must, I think, recognise that all reasoning processes are in principle liable to be irrationally influenced by cravings which the reasoner will not or cannot bring into clear consciousness. This theory enables us to understand how our friends come to use fantastic arguments. And if this is the case with them it is probably so also with us.

Here we may note some of the more obvious ways in which "the unconscious" may exercise a distorting influence. Frustrated self-regard, frustrated sex, frustrated sociality, untoward parental relations, marital relations or social relations, repressed fear, hate,

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cruelty—all these may have a dire effect in misdirecting reason and forming false concepts.

Every particular reasoning process, then, may be to a greater or lesser extent distorted by "unconscious wishes." These wishes or needs may be peculiar to the individual or common to all members of his community or to all members of the human race. By every possible means we must guard against this danger in our own thinking. Two methods are possible. The first is to explore and bring into clear consciousness, so far as possible, our unconscious needs. The psychoanalysts assure us that we cannot do this without being analysed. I should myself have more faith in this method if it did not seem to me that in their own behaviour, speech, and writing the distorting influence of unconscious needs was sometimes painfully obvious. However, the psychoanalysts are no doubt in principle right. We cannot delve far into our unconscious needs without expert help. My only doubt is as to whether any really expert help is yet available. Some day, no doubt, it will be. Meanwhile, we can, I believe, do a good deal more than the psychoanalysts suppose in the way of knowing our own motives. Anyhow, we can but *try* to know them as far as possible.

The second method of guarding against the irrational influence of unconscious needs is to formulate a logical technique so exact and reliable that errors introduced by irrational influences will be as patent as errors in arithmetic. The patient work of modern logicians is laying the foundations for such a technique, but at present the practical application of their technique is scarcely possible. They have, however, exposed many

unexpected snares of thought, many sources of ambiguity and false reasoning.

It may be that through the use of these two methods human thinking may some day become far less unreliable than it is now. Meanwhile, we can at any rate to some extent guard against inaccurate reasoning and emotional distortion of reasoning by fostering in ourselves a strong devotion to clear thinking. The desire that is least likely to distort the thinking process is the desire for intellectual accuracy. Even this, as we have seen, may sometimes defeat its own end by creating an extravagant passion for scepticism or for hair-splitting analysis.

(c) *Social and Economic Determinants of Thought.*— This principle of the irrational determination of thought is immensely important. Though it cannot be used to undermine reason in general, any particular process of reasoning *may* be invalidated by unconscious needs. We are at last beginning to suspect that the history of a community's thought is determined less by purely rational considerations than by other influences. On the whole, those ideas and values tend to survive which are emotionally satisfactory either to the community as a whole or (more often) to a dominant class within the community. Rationality, of course, has some influence, but its scope is limited and precarious. In the long run it has little power against the strong primitive urges of self-regard, sex, and herd-feeling. No doubt, flagrantly irrational ideas will not gain general acceptance unless they are either presented in times of extreme emotional excitement or so obscurely expressed that their irrationality is concealed. And, of course, ideas which, through obvious failure to

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correspond with facts, would lead to swift and dramatic disaster are also unacceptable. But apart from such extreme cases, the fate of ideas depends very largely on their power to give emotional satisfaction. This in turn depends partly on their actual or illusory satisfaction of primitive needs which may not be introspectable by the thinker himself.

On the other hand, we must recognise that there is a constant process of natural selection of ideas. On the whole, in the very long run, those ideas that tend to fit a community for survival triumph over those that tend towards the community's destruction. This process is not to be regarded as a triumph of rationality in human minds. It represents simply the nemesis that overtakes all folly in the long run. I shall have more to say on this subject under the headings of Ethical Scepticism and Economic Determinism.

There can be little doubt that in every age there occurs a fairly rigorous but not absolute economic determination of culture. The culture of any particular community at any moment of its history is an expression of the following influences:

1. The culture of the preceding period. This includes both "culture" in the restricted sense and the whole social tradition of behaviour.
2. The present economic condition of society, including (a) the needs of the masses and (b) the needs of dominant classes.
3. Other present conditions not primarily economic, such as scientific discoveries.
4. The degree of mental health, or freedom from frustration and obsession, in the masses and the dominant classes. This frustration is of two types, personal

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(e.g. parent complex) and social (e.g. economic frustration).

5. The general intelligence of the masses and the dominant classes, and their power of resistance to suggestion.

6. The degree of the power which the dominant classes exercise through coercion and propaganda.

Of these factors those which affect the dominant classes are generally far more important in determining culture than those which affect the masses. But the greater the divergence between the needs of the masses and those of the dominant classes the more will the culture of the dominant classes (and therefore of the masses themselves at second hand) be determined by the will of the dominant classes to maintain their power. That is to say, ideas which seem to the dominant classes "subversive," either socially or morally or intellectually or even æsthetically, will be severely repressed.

III. IRRATIONALISM

(a) *Statement of the Theory.*—The subtlety and range of these irrational determinants of thought may seem to support a radical scepticism about the value of intellectual enquiry. If the distortions of thinking are so far-reaching and so secret, must we not recognise that all our thinking is wholly untrustworthy, save in the most simple practical spheres?

Other considerations have been thought to prove not merely that intellect is in fact so confused as to be worthless, but that in principle, in its very nature, it is doomed to failure. Human intellect, we are told, is a product of biological evolution. It occurred because

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of its survival value in practical situations. It is adapted only to practical purposes. When it is used in pursuit of more abstruse ends, such as metaphysical truth, it defeats itself. As well might the flippers of a seal be used for flying.

Moreover, it is said, we have no justification for assuming that reality *is* rational at all in its intrinsic nature. Why should it conform to the requirements of intellect? No doubt, in practical life, a great deal of system does appear in the world, but this is imposed by the mind, imposed upon a fundamentally irrational, non-systematic reality. The rationality of science is not in the last analysis objective; it is a sort of reflection which the object throws back to the rationalising mind, a reflection of the mind's own rationalising nature.

Further, it has been suggested that intellectual activity is not, properly speaking, a way of *knowing* at all. What it can do is simply to devise formulæ for successful action. Physics and chemistry do not tell us anything about the nature of matter. They merely provide us with principles useful for the control of matter—in fact, for industry, medicine, war, and so on. This is the essence of Pragmatism.

All our concepts, it is said, even the most subtle and abstract, have their roots in the practical thinking of primitive savages. Intellectual curiosity, working with these barbaric tools, has, of course, wonderfully improved them; but at bottom they remain the same rude implements, and they can no more give us objective truth about things than the savage's spear can pierce the sun. Matter, mind, space, time, causation, freedom, necessity, and, indeed, the whole gamut of our concepts, are said to be utterly deceptive if we expect of

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them insight into reality, and not merely precepts for action.

Another charge that is brought against intellectual enquiry is that it is vitiated by its analytic method. Intellect has to study a complex whole by distinguishing its component parts and observing their relations with one another. In so doing, we are told, it dooms itself never to grasp the Whole as such. This criticism is related to the monistic view of the universe. If the only truth is the whole truth about the whole universe, it is impossible to build up the truth bit by bit out of "partial truths," which are not really true at all, save in relation to particular finite purposes. In this view the universe is conceived as organic. The analytical account of the parts of an organism and of their behaviour can never, it is said, give the truth about the organism as a whole, which cannot be analysed without being destroyed.

Intellect, we are told, works with concepts which are mere abstractions from concrete reality. They are derived by attending to a particular character in its concrete setting and ignoring the setting. But characters have no existence without their setting. They are expressions of their setting. To hypostatise them in this manner is to falsify them. Any particular character, say the red of that rose, is not simply an example of redness, or even of any particular shade of red. It is the particular shade in relation to a particular background. Thus, it is said, even the fullest and most accurate description of a concrete thing or event, in which *all* its characters were duly enumerated, would be false throughout, not only in the sense that all knowledge save knowledge of the Whole *must* be false, but

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also in the sense that each item in the description would lack concreteness, and therefore the whole description would lack it.

Yet another argument in favour of irrationalism is based on the charge that intellect can only regard its objects from outside. It can never penetrate into them and know them inwardly. Even the most seemingly penetrating scientific analysis is really quite external. Science, for instance, cannot tell us what an electron is in itself, but only how it affects the observer. Properly to know a thing, we are told, we must not merely stand over against it and observe its aspects, one after another; we must enter into it and *be* it. This, intellect can never do.

Along with this charge against intellect the claim is often made that there is another way of knowing which is not stultified by analysis and externality. This is said to be a direct, intuitive apprehension of reality. In support of this claim reference is made to immediate sense-experience as a genuine, though of course limited, "being-the-object" and therefore knowing it inwardly, in contrast with indirect, though more pretentious, intellectual knowledge. Instinctive action is also cited as an example of the superior kind of intuitive or inward knowing. The wasp which seals up food along with its eggs, for the future grubs, is said to know intuitively the future grubs' future needs. Similarly, we are told, æsthetic and moral intuitions, the intuitive sense of another person's character, and also the experiences of the mystics, are modes of knowing which are not subject to intellect's limitations.

(b) *Objections to Irrationalism.*—Before considering the claim that there is another kind of knowing more

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penetrating than intellectual knowing, let us deal with the criticisms of intellectual knowledge itself, and particularly with the charge that it is in principle impotent.

The fact that intellect was evolved under the stress of biological evolution as a means of dealing with practical problems does not involve its incapacity in the realm of theory. Many activities which at the outset were ill-suited to the capacities of a species have subsequently developed to a high degree of efficiency. It is true, of course, that an organ which has become highly specialised for one purpose cannot easily be adapted to another. The seal's flippers, of course, are of no use for flying. But they themselves developed from organs of terrestrial locomotion, and were once ill-adapted to swimming. Wings, too, have evolved from legs. Such arguments, however, are of little value, one way or the other. The important point is that, as we have seen, intelligent behaviour is essentially of the same type whether it is applied to practical or to theoretical problems, and that the problems themselves are essentially of the same type too. So long as intellect really does conform to the principles of its own nature, and does not commit sheer errors, it can give genuine information about the universe.

The Pragmatist's claim that intellect cannot afford insight into objective reality, that it can do no more than devise formulæ for action, contains an important truth; but it goes too far. It is true that even the most abstract intellectual knowledge is in a sense a formula for action, even if it is so remote from practical life that no action can at present be based on it. But it is equally true that no intellectual knowledge is *only* a formula for action. To be useful in action a formula

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must work. And to work, it must be a generalisation about certain characteristics of the objective world. To that extent it really is, or rather affords, real knowledge of the objective world.

Of course, if "knowing" means only immediate acquaintance with, direct contact with, or mystical penetration into the object known, or into a "reality" behind appearances, intellect is incapable of yielding knowledge. But if the word "knowing" is given a more modest and more usual sense, and is allowed to include the discovery of any true information *about* the object, then clearly intellect can give knowledge. Starting with the immediate data of sense-experience, it constructs and verifies hypotheses, scientific laws, theories of "scientific objects," according to which future experience may be predicted. Such knowledge really is knowledge about reality, even though it is not penetrating knowledge.

The identification of knowing and being, implied in the claim that to know anything one must be it, is merely a confusion of thought. It seems to be based on the mistaken notion that the only thing a man really knows is himself, because he *is* himself. As a matter of fact he knows almost nothing about himself, and what he does know is found not by being himself but by making himself an object of a knowing act in the ordinary way. In fact, to know himself he must be able in a manner to "stand outside" himself and "look" at himself. Similarly with sensation. We do not know a sensed object, such as a red patch, by simply being it. To know it we must, so to speak, hold it at arm's length, focus it, and contemplate it.

The charge that analysis is essentially falsifying has

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no weight at all unless extreme monism is true. Of course, if reality is indeed a single substance in which all distinctions are illusory, if we cannot know anything unless we know the Whole, and know all about it, then intellectual activity is indeed futile. The theory of monism must be considered later. For the moment we may merely note that if monism is strictly true, and if intellectual knowledge is in principle radically fallacious, there is no reason to trust the arguments which lead to this conclusion, since they themselves are intellectual arguments, and therefore fallacious.

It is mistaken to suppose that all conceptual knowing must be false because of the nature of abstraction. No doubt a concept is formed by abstracting a particular character from all its many concrete occasions and ignoring its setting in those occasions; but this procedure is quite legitimate so long as we remember that what we are acquiring in abstract knowledge *is* abstract, so long as we do not suppose that our abstract knowledge of the object is the *whole* truth about it.

Similar is the charge that intellect itself imposes an illusory rationality on a fundamentally irrational reality. The charge is arbitrary. Clearly we do seem to discover some system in the world; and, short of complete subjectivism, there seems no reason to deny that such system as we do discover really does belong to the objective world. It does not, of course, follow that the world is systematic through and through.

Let us now consider the contention that there is another kind of knowing which is free from the disabilities of intellect, and is indeed the only true knowing, because it enters into the object. The case of

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instinctive action is really quite irrelevant. There is no reason whatever to suppose that the wasp *knows* that its eggs will hatch into hungry grubs, or that it *knows* what food it will want. As well might we suppose that when a child is terrified of the dark it knows why it fears. The truth is simply that the dark arouses fear in it. It may, of course, invent reasons for its fear; but the real cause of its fear is unknown.

Æsthetic and moral intuitions, and intuitions about personal character, are often cited as cases of the non-intellectual kind of knowing. They are, of course, at bottom cases of direct acquaintance with *something*, and so far indubitable. But the interpretation which is put upon them when they are described or even thought about is an intellectual structure, and open to error. Even the intuitive core of these experiences is partly the product of past intellectual operations of analysis and synthesis, now forgotten. And even if we grant that there are some factors in æsthetic and moral experience which are irreducible intuitions, these intuitions cannot be properly *known* without intellectual study of them; just as, if we would precisely know the qualities of sensation, we must make generalisations about their likenesses and differences in comparison with other sensations.

We have already seen that intellect itself is intuitive through and through. It operates on data which are given intuitively (such as sense-characters), and these it compares and contrasts and generalises about in successive acts of intuitive "vision." It may well be that there are kinds of intuitive experience other than intuitive sense-experience, and that these do afford peculiar insight into certain characteristics of reality.

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But this does not mean that reality is irrational in the sense that it is incoherent, unsystematic, arbitrary. It means only that reality is irrational in the sense that the ultimate data on which intellect works must be simply brute facts. Even if reality is systematic through and through, intellect knows no necessity in virtue of which it *must* be so. Its very rationality (in so far as it *is* rational) must be accepted simply as an irrational fact.

I shall not now discuss the claim that mystical experience affords some kind of intuitive knowledge of the whole of reality. It is enough to say that even if it does, even if mystical knowledge is the supreme kind of knowledge, this is no reason why ordinary intellectual knowledge should be deemed worthless as a means of knowing some kinds of facts about reality.

IV. THE PLACE OF REASON

Let us now try to sum up and draw conclusions from our discussion of the scope and limitations of reason. Irrationalism came into vogue as a reaction against extreme Rationalism. It has been supposed that rationality was fundamental to the universe, that there must be a reason for everything, that in theory everything in the universe could be deduced from the rational nature of the universe as a whole, and that man, in spite of his ignorance and stupidity, was in essence a rational being, who would always act reasonably if only he could be led to see the reasonable course. When rationalism of this extreme kind had come to seem extravagant, the pendulum of culture, gathering momentum, began to swing toward an equally extravagant irrationalism. This I have criticised. All its

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arguments are either false, or effective only against the extravagant kind of rationalism.

We may conclude as follows. Reasoning can only work upon data given in intuitive experience. It cannot find any necessity in its ultimate data. Nor has it any foreknowledge that the data must be in any way systematic and amenable to intellectual study. Its task is to compare, distinguish, clarify, and relate the data, and to discover temporal sequences of data, for the purpose of understanding, prediction, or control. Each act of comparing, and so on, is itself intuitive. Reasoning is a sequence of linked intuitions. The data upon which reasoning operates are of many kinds. There are intuitions of sense and of introspection, logical and mathematical intuitions, æsthetic and moral intuitions, and there may be many other kinds. The scope of some of these experiences is very restricted, of others much more comprehensive. We must not rule out the possibility of an intuitive experience of the whole universe, or of the relation between the experienced and the whole. Even such a datum of intuition might, if it occurred, afford matter for intellectual study, though the concepts derived from the sphere of normal experience might well prove wholly inadequate to the task.

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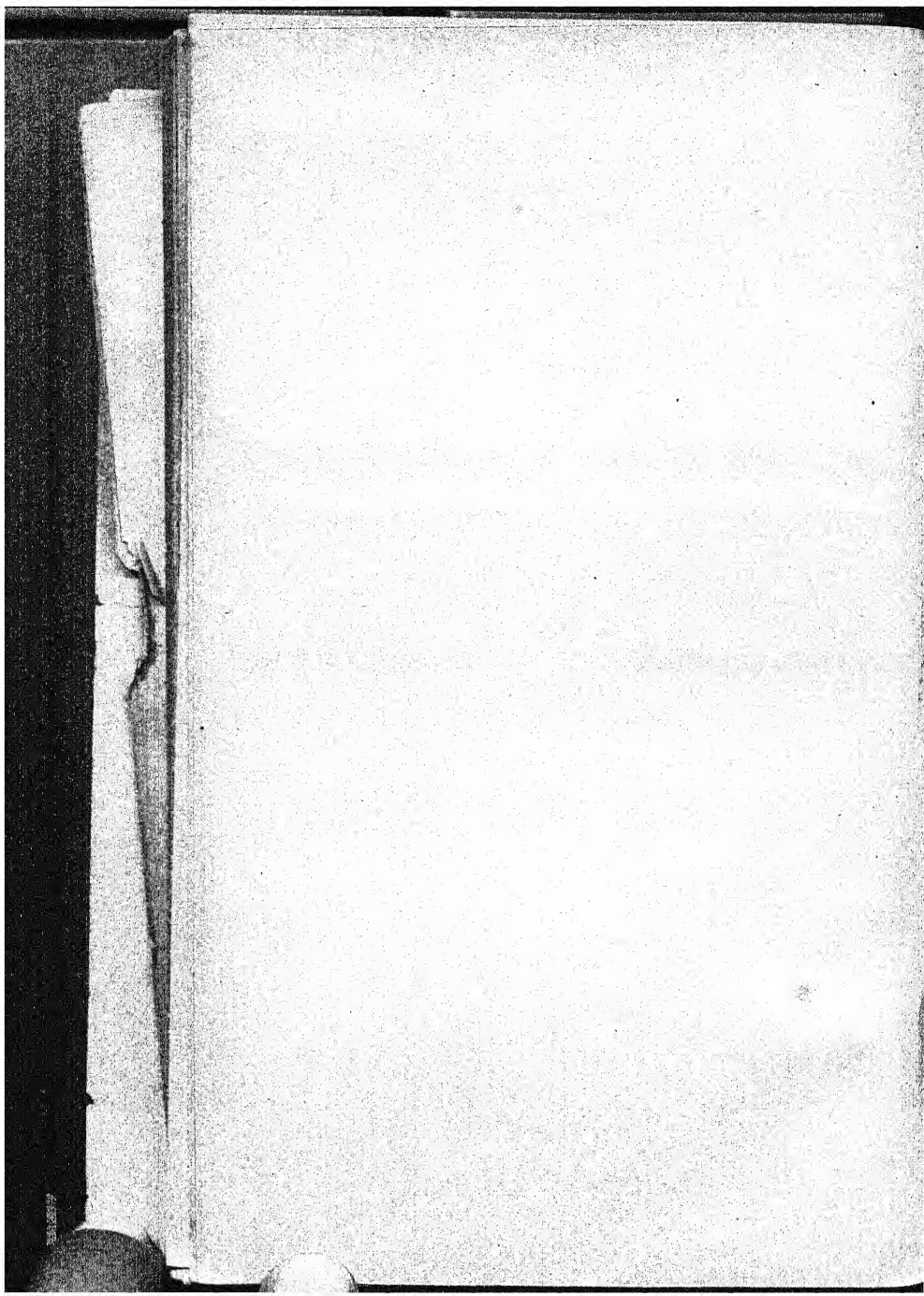
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CHAPTER VII

ETHICS

I. Fact and value. II. Some distinctions and problems. III. Some traditional theories. IV. Ethical scepticism: ethnology and psycho-analysis. V. Ethical scepticism: Logical Positivism. VI. The practical upshot.

I. FACT AND VALUE

HITHERTO we have been considering questions of fact, not questions of value, or of good and bad. The word "value" is very ambiguous, but it is a useful "hold-all" word to include all the sought and shunned aspects of experience. Pure science and pure logic are supposed to be concerned only with questions of fact, and not at all with the pleasantness, usefulness, goodness, or beauty of the facts which they discover. The physicist studies the behaviour of electrons without passing moral judgments on it. Utilitarian, moral, or æsthetic motives may direct his attention to certain fields of study rather than to others; but he must so far as possible prevent these motives from influencing his actual study of facts. Truth itself is in a sense a value, not only for the utilitarian motives but for the motive of pure intellectual curiosity; since it is indeed something which is sometimes sought and admired for its own sake. On the other hand, values themselves are in *some* sense facts. It is a fact that, men being what they are, food has value for them. It is a fact that for the lover the beloved is a thing of value. It is a fact that for Christians love itself has value or is a value. These statements are all in *some* sense true statements

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of fact. It is our concern in this chapter to form as clear an idea as possible of the nature of their common element, namely, value.

II. SOME DISTINCTIONS AND PROBLEMS

To avoid confusion let us make a few preliminary distinctions. Some of them may turn out to be mistaken or superficial, but it is necessary to grasp them clearly at the outset, if only to be able to dismiss them.

First we must distinguish between the thing that is valued and the activity of valuing it, between a drink, or the act of drinking-a-drink, and the enjoying of drinking-a-drink; between the beloved and the act of cherishing her; between loving and the act of valuing love itself.

We must also distinguish between external objects valued and one's own activity valued. In the case of drinking, the object is the actual liquid, the activity is what we do with the liquid, namely, drinking. Strictly, what we value is drinking-a-drink. Both drink and drinking are distinct from the valuing or enjoying. In this case it is clear that what we value or enjoy is a complex made up of certain objective sensory characters (coolness, bitterness, fragrance, etc.) and a certain muscular activity of our own. In the case of the beloved also we must distinguish the object (a physical and mental "person"), what we *do* with the object (activities physical and mental), and the act of valuing or enjoying. Once more we value or enjoy both the object and our activity. But while in the case of the drink we may incline to say that we value the object *merely* as a means for the activity, in the case of the beloved some would probably insist that they valued

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her mainly for her own sake and not merely as a means. They might say that they appreciate her intrinsic excellence.

In both cases another problem arises. Do we value the "pleasure" which the object or the activity affords, or is "pleasure" itself simply the activity of valuing something other than itself? According to the doctrine of Hedonism we value intrinsically only our own pleasure; other things we value only as means to our own pleasure. Is this true?

Clearly, whatever the truth about pleasure, we must make a general distinction between "ends" and "means," or between the things that we value for their own sake and the things that we value only as instruments for the attainment of other things. We may call things that are valued for their own sake "intrinsically good," and things that are valued only as means "instrumentally good." When a man is thirsty he values the *act* of drinking as intrinsically good, though he may also value certain sensations. At other times he may value it only as a means to health or to social intercourse; that is, as instrumentally good.

Things that we originally valued only as means may come to be valued as ends. Money, or rather the activity of acquiring it, which for most of us is a means, becomes for the miser an end. On the other hand, things that we formerly valued as ends may come to be discarded, or sought only as means. We outgrow our childish tastes.

The question arises, are there any things, or is there any one kind of thing, which we cannot but value intrinsically? Many answers have been given to this question. Besides the Hedonist's answer, that we

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value only "pleasure" for its own sake, there is the Idealist's that we value only "self-fulfilment," sometimes in partial and imperfect forms, more reasonably as fulfilment of the "personality" as a systematic whole. There are also other possible answers.

Another problem which arises is this. Is "goodness" a character actually belonging to some things and not to others, in the manner in which roundness is thought to belong to things; or is the supposed goodness of a thing illusory? Is the truth merely that we call a thing good when it fulfils a certain function in relation to ourselves or to the human race?

The word "good" is certainly very ambiguous. When we say that a thing is good, we may *mean* simply that it pleases us, or we may *mean* to attribute a certain unique character to it, or we may *mean* simply that it ought to be.

When we say that a thing "ought" to be, or happen, we may mean merely that, assuming a certain purpose, the thing is necessary as a means to the achievement of that purpose. (*If you want to understand Frenchmen you ought to take lessons in French.*) Or we may mean a moral "ought." (A man ought to befriend his fellows.) Can this moral "ought" also be derived from some purpose? And if so, is it God's purpose, or whose? If, on the other hand, the moral "ought" is not connected with any sort of purpose, what sense can there be in the notion of a moral claim which binds us whether we will or not? Or is moral obligation an illusion?

Let us begin by briefly noticing some of the most important ethical theories.

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III. SOME TRADITIONAL THEORIES

(a) *Plato and Aristotle*.—We have already seen that Plato distinguished sharply between particular things and the universal forms toward which they approximate, and that for him the form was not only a form but an ideal which the thing strove to embody. He thus distinguished between two spheres of being, the realm of imperfect things and the realm of perfect forms. The form of man was the ideal to which all men approximate, and it existed independently of actual men. Justice was the ideal form of all just acts, which each act in turn "strove" to embody. Truth, goodness, and beauty were logically independent of all examples of them.

This view is repugnant to the typically modern mind. We have come to suspect every kind of theory in which the actual world is less real than some unseen ideal world. We know too well, by bitter experience, that such views may encourage complacency toward the ills of our fellows in this world. Moreover, our obsession with physical science makes us impatient with the idea that there may be a reality beyond the flux of time and the passions of this world.

Neither of these motives affords a reasonable criticism of the Platonic theory. Indeed, the fact that we feel as we do suggests that we are unduly impressed by the physical and the ephemeral.

Nevertheless we must, I think, reject the Platonic theory as a straightforward account of the status of good and evil as we actually experience it. We have, after all, no good reason to believe that the ideal form of man is a pattern subsisting independently of the

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actual world. It is simply a possibility implied *in* the nature of actual men. In our experience we find that certain human characters and activities are good. We intuit them as such. Love, for instance, and courage are known only in actual instances. We find them always imperfect, mingled with other characters which detract from their full being. The ideal is simply an abstraction from the imperfect instances.

Plato's great pupil Aristotle developed his master's theory in his own manner. For him the ideal was, in fact, something implicit in our own nature. The ideal form of manhood was implicit in the imperfect desires of particular men. "Good" was to be derived from desire. But since desires conflict, and are moreover of different ranks of importance, we must not allow any of them extravagant expression to the detriment of others. Hence the famous doctrine of the Mean. One capacity only may be given free rein, namely, the capacity for reasoning and for desiring the truth; since the special function of this is to rule and judge between all the others. Thus from Aristotle we learn two important principles which play a great part in subsequent ethical thought, namely, that the good, to constitute a motive for action, must appeal to something *in our own nature*, and that the ideal is the systematic or harmonious fulfilment of human capacities.

(b) *Hedonism and Utilitarianism.*—Under the influence of Hume and of modern scientific materialism there arose a very different attitude toward ethical problems. In this view the individual mind was simply a sequence of mental states, some of which were pleasant and some unpleasant. Good and evil were

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therefore identical with the pleasure and displeasure of the individual mind.

The word "Hedonism" covers two distinct theories, one psychological, the other ethical. According to Psychological Hedonism a man always desires his own pleasure and cannot possibly desire anything else. Is this true? The claim is that, when we seek anything, what we are "really" seeking is the pleasantness which it is expected to afford us. Thus if a man wants to drink, or to excel over his fellows, or to champion a cause, what he is really seeking in each case is identical, namely, the experience of pleasure. The theory abstracts the pleasantness of the act and regards it as the sole object of desire.

This account is psychologically incorrect. It is true of course that the attainment of our ends gives us pleasure. But why do we desire those ends? Not because they promise pleasure, but for their own sake. Certain situations stimulate us to certain actions, and our free functioning in these actions pleases us. Pleasure is nothing but the "pleasedness" that we feel in the success of our enterprises. This is equally true of complex, highly developed activities and of simple, animal activities. Superficially we may, of course, say that a child eats sweets "for the pleasure of eating them." More correctly, it is pleased with eating them because it *wants* to eat them, in the sense that some active factor in its psycho-physical make-up is felt to be afforded free activity by eating sugar. If it goes on eating sugar for long enough there will come a time when it becomes aware of the impact of sugar more as thwarting than as fulfilling. Then the pleasure gives place to disgust. In a sense, of course, it is true that a

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man desires only his own pleasure, since, obviously, in desiring any object whatever he *ipso facto* makes that object become an object of *his* desire; and when he attains the object he will be pleased. But what made it seem desirable? Not, in the *first* instance, the abstracted "pleasedness" afforded by having it, but its felt favourableness to his own active nature. To abstract the feeling from the rest, and then affirm that what a man seeks is this abstraction, is a mistake.

Psychological Hedonism, then, is false. Ethical Hedonism is based on Psychological Hedonism. It says in effect not only that a man *can* only desire his own pleasure, but, further, that his own pleasure is what he *ought* to desire. Pleasure, one's own pleasure, is the sole good. But if we *can* only desire our own pleasure, what significance is there in saying that we *ought* to desire it? The word "ought" surely implies the possibility that we *might* not do what we ought.

Hedonism, psychological and ethical, is the foundation of the ethical theory of Utilitarianism. Of Utilitarianism as a principle for the direction of public affairs much good might be said; but Utilitarianism as a philosophical doctrine is a tissue of false argument. The theory may be summed up as follows: "A man *can* only desire his own pleasure. Therefore pleasure alone is desirable. Pleasure is pleasure whether it is my pleasure or another's. Therefore what I ought to desire is the greatest amount of pleasure for as many people as possible," or "the greatest happiness of the greatest number."

In this argument the word "desirable" is ambiguous. It may mean either "*able* to be desired" or "*ought* to be desired." Professor G. E. Moore has exposed the con-

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sequent fallacy. The proposition, "A man can only desire his own pleasure," implies the proposition, "Pleasure alone is desirable," only if "desirable" means "*can* be desired." The proposition, "therefore pleasure alone is desirable" cannot imply ethical consequences unless "desirable" is taken *not* in the psychological but the ethical sense, namely, as equivalent to "*ought* to be desired." But in this sense the proposition, "Pleasure alone is desirable" does not follow from the proposition, "A man *can* only desire his own pleasure."

Moreover, the starting-point of the argument is the proposition that a man can only desire his *own* pleasure. How then can he possibly be under obligation to desire *other* people's pleasure, the greatest happiness of the greatest number?

Another serious difficulty has to be faced by Utilitarianism. How are we to form a calculus of pleasure? It is essential for Utilitarianism that pleasure should be always one and the same measurable thing, wherever it occurs. If there are different *kinds* of pleasure, how are we to measure one kind of pleasure against another, say, the pleasure of football against the pleasure of philosophy? Still worse, how are we to measure one man's pleasure in philosophy against another's; or, worse again, against another man's pleasure in (say) martyrdom? It is true that in a given situation we can roughly estimate which of two acts will give us more pleasure. But very often we incline to feel that the act which (we should say) gives less pleasure is in fact the better act in some obscure but important sense. For instance, it is commonly agreed that helping the needy, though irksome, is better than feasting. The Ethical

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Hedonist and the Utilitarian assure us that actually we shall get more pleasure out of helping than out of feasting. But when this is true, which is not always, the greater pleasure is surely *consequent* on our belief that the act of helping is socially desirable, or right.

Faced with this difficulty, John Stuart Mill, the greatest Utilitarian, admitted that pleasures differ in *quality* as well as in intensity or quantity of pleasurable-ness, and declared that those of higher quality were more desirable (morally) than those of lower quality. But this admission undermines the whole doctrine, since it introduces something other than the single criterion of pleasurable-ness.

(c) *Idealist Ethics*.—Modern Idealist philosophers riddled Hedonism and Utilitarianism with much shrewd criticism and offered theories of their own. The pioneer was Kant, impressed by "the starry heaven above and the moral law within." So far was he from agreeing with the subjectivistic doctrine of Hedonism that he went to the extreme of objectivism. The moral law, though "within," must be wholly objective, independent of human desires. He even went so far as to say that a "good" act done with pleasure was not really a *morally* good act at all, since a morally good act must have no motive but the goodness of the act itself. There is nothing good, he said, but a good will. For him the central principle of morality was rationality. His "categorical imperative" was expressed in the formula, "Act only on that maxim which thou canst at the same time will to become a universal law." Thus we must not lie, and we must not murder, because we cannot will lying and murder to be universal. To this principle Kant added

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another, namely, that "man, and generally any rational being, exists as an end in himself." From this it followed that we must treat human beings always as ends, not merely as means. But they were to be treated as ends simply because they were *rational* beings, not because they were active, desiring beings.

The fundamental criticism of Kant's moral theory is this. Good cannot be derived from sheer rationality. Lying, for instance, may *in some circumstances* be right. Kant apparently failed to see that *what* I can and cannot will to become a universal law depends in the last resort not on sheer rationality but on my active dispositions or needs. In fact, he did not recognise that good must be in some way connected with human capacity, otherwise it could never afford a motive for action.

Later Idealist philosophers, for instance F. H. Bradley, avoided this error, by stressing Kant's other principle, namely, that individuals must be treated as ends. According to them a man can only desire the fulfilment of his self, by which they meant something very different from pleasure. Like Kant, they thought of a man not as a mere centre of pleasant and unpleasant experiences, but as a *system* of experience or of "mental content"—in fact, a universe of experience which included, along with experience of his own body and his own individual personal needs, his experience of other persons. It followed, they said, that he could not gain true self-fulfilment so long as the demands of the self as a whole system, including the known needs of other selves, were left unfulfilled. Necessarily there would be conflict within the self, and some needs would have to go unsatisfied; but any such frustration must be subordinate to, or an actual means to, the

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fulfilment of the self as a whole system of active capacities, some of which were subordinate to others.

Of course, we do not *actually* desire the ideal self-fulfilment which involves the fulfilment of society as a whole. We desire all sorts of less comprehensive ends, some very trivial, some flagrantly in conflict with the good of others, or of society as a whole. Idealist Ethics admits this, but distinguishes between a man's "actual" but imperfect will, and his "real" and perfect will, which demands *complete* self-fulfilment, and therefore the good of society. Though he does not ever effectively will this goal, or at best seldom does, it is *logically implied* (we are told) in his actual will. For to will *some* of the ends demanded in his experience, and not all, is irrational. The fact that some are needs of his private self and some are needs of other selves is said to be irrelevant to their being needs experienced within the horizon of *his* mind. The needs of his body and private person as opposed to those of others (we are told) are simply one set of needs within his experience. Though he is apt to feel them with greater intensity than the needs of others, they have no peculiar status in relation to his "real" will.

It follows from the theory that though the actual wills of individuals differ and conflict, their "real" wills, which will the fulfilment of all men, are harmonious, nay identical. The "real" will of each individual, it is claimed, is the completely rational will, the completely social will, the Good Will.

Moral obligation, in this theory, is the claim exercised by the real will over the imperfect actual will. Once you begin to will at all, you must, logically-

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morally, will the Good Will. To do less is to defeat your own essential nature.

I shall now try to state some of the main criticisms that have been made against Idealist Ethics. What reason is there to say that the will for the lower activities *logically implies* the will for the higher ones? Does the cynical will for self-aggrandisement at the expense of others *imply* the social will? From the pure egotist's point of view the social will is flagrantly irrational, for the cogent reason that the good of others happens to them and not to him. Even those who do at least spasmodically will the social good may well doubt whether the social will is logically implied in the self-regarding will. Rather it seems to demand a genuine awakening of *new sensibility* to something novel which could not be deduced from the more familiar ends. However this may be, we must insist that, if in his blind state a man cannot *recognise* the logical implication of his will, the moral claim has no application to him.

Moreover, what if, in his moral perversity, he snaps his fingers at rationality itself? It may well be true that, as a matter of fact, he cannot find self-fulfilment unless he does will the rational, social Good Will; but what if he rejects the goal of logically perfect self-fulfilment and insists on desiring only partial and perhaps thoroughly immoral ends? Is there any sense in saying that his obligation to will something better than this lies in the fact that, to a being superior to him, his conduct appears irrational and immoral?

We may put the criticism in another way. For the theory to work it is essential that the good will should be *my* will in the sense that it actually does appeal to

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me as the way of self-fulfilment for me, for *this* particular conscious being with all its limitations. But if it is my will in this sense, morality is reduced to prudent self-regard. On the other hand, if we stress the objectivity of the moral claim, insisting that the good is independent of my actual will, then the theory's explanation of the moral claim is a mere play upon words.

But though the Idealist theory of moral obligation should be rejected as it stands, we must, I think, agree that rationality plays a very important part in moral experience. In a very real sense the good will is the rational will; and one motive of moral conduct is the will for rationality, the will to detach the will from personal favouritism, to regard all men, including oneself, as on the same footing. This motive of objectivity and rationality has played a great part, and does provide, for those who *actually* will it, a logical basis for obligation.

(d) *Ethics of Evolutionism*.—The theory of biological evolution is sometimes made the basis of a confused and dangerous ethical theory. The discovery that certain species have evolved from simpler types, and that man himself is in this sense the flower of the evolutionary process, suggested that there must be some sort of "life force" striving to produce ever more developed types, and that "good" and "bad" must mean at bottom "favourable to" and "unfavourable to" the evolutionary process.

This theory is only plausible because in the case of man's evolution the direction of change has led on the whole to the increase of those characters which we do admire, such as intelligence and affection. Were we

living in an epoch of biological degeneration we should not be tempted to derive goodness from evolution. Progress is by no means general. Many biological types have stagnated; many have declined. Evolutionary ethics, moreover, could only seem plausible during a spell of *social* advancement, such as that which was occurring in Western Europe when Evolutionary Ethics became popular. To-day, when our society threatens to collapse, the theory looks less plausible.

Such considerations are not really relevant to the truth or falsity of the theory. What matters is rather that we know very little of the causes and direction of evolution; while good and bad are experienced every day in our own lives. It is certainly arguable that what is intrinsically good is richness and depth of experience and fullness of creative living (if I may be pardoned a very vague phrase). It is true also that in some cases evolution has moved in that direction. It is even possible that there *is* some sort of bias in this direction in the universe. But to derive our moral experience from that bias is to derive the known from the unknown and problematical. "Good" is not good *because* it is the goal of evolution; rather evolution is good (*if* it really is good) because its goal is something which we recognise as good.

Moreover, to explain "good" by evolution is like explaining the falling of a stone by saying that it has a capacity for falling. In the case of gravitation, the only kind of explanation that can be usefully given is a systematic *description* of gravitational happenings, not an explanation in terms of an entirely unknown metaphysical entity. Similarly with moral experience, we can explain only by systematically describing all kinds

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of moral experience and relating them to other descriptive facts about human nature and the objective world. It is useless to postulate an unknown metaphysical entity.

(e) *Intuitionism*.—I shall now describe and criticise a theory which starts by insisting that moral experience is unique, and not to be explained in terms of anything other than itself. Philosophers who hold this theory claim that "good" and "bad" are unique objective characters which belong to some things and not to others; and that in apprehending them we simply intuit that "good" *ought* to be, and "bad" ought not to be, and that "good" ought to be striven for and "bad" striven against. In this view the word "good" and the phrase "ought to be and be striven for" have identical meaning. And that meaning is unanalysable and indefinable. We all know intuitively what that meaning is, but according to the theory we can no more explain or describe it to a non-moral being than we can explain or describe colour to a man born blind.

In this country Professor G. E. Moore has been the chief exponent of this view. He argued that "good" could not be simply identical with "pleasant" or with "self-fulfilling" or with "fit to survive" or any other character, because if it *were* identical with any of them we should not be able to distinguish between it and the other.

In particular, "good," he says, is not to be identified with "desired." The good is not good *because* we desire it, or because God desires it, or because the fully enlightened mind would desire it. On the contrary, we desire it (so far as we *do* desire it) because it is good. We simply intuit it as desirable, in the moral

sense. It is such that it imposes moral obligation on us.

If "good" is intuited in this direct manner, it may be objected, how is it that moral judgments conflict, and are therefore capable of error? If we intuit "good" and "bad" in the same sense as we intuit sensory characters, such as "red" and "salt," how comes it that we can make mistakes about them? We cannot make mistakes about sensory intuition. To this objection it is answered that we cannot really make mistakes about moral intuition. Moral situations, however, are often very complex situations in which the moral factor itself may be very easily overlooked or mis-described. We may, it is said, fail to analyse out from the situation that in it which is good (or bad); but if once we do see the situation accurately, we cannot but see the good and the bad in it, if we are morally sensitive beings.

We must note one serious difficulty in the Intuitionist theory. It is claimed that the unique, objective character "good" constitutes a motive for action in the moral agent. He recognises that he ought to establish it. But, as Aristotle long ago pointed out, nothing wholly external to the self can provide a motive for action. Obligation, that is, must, after all, appeal to something *in a man's own nature*. If this is true, the Intuitionist account of the matter is quite unintelligible. On the other hand, if "good" is, after all, identical with fulfilment of capacity, then it does appeal to something in our own nature. And the moral claim exercised over us by other individuals for *their* fulfilment springs from our cognition of their capacities *as* capacities, as needs of the same order as our own, and as

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appealing to us through the medium of our imagination and our will for rationality.

But though this fundamental criticism must be made against Intuitionism, the theory remains true, I suggest, in a special sense. In experiencing some particular activity (say, love) one does experience the activity as morally good, as "ought to be" and "ought to be fostered by all who can see what it is." And the goodness of the activity is intuited as a character objective to the intuitive recognition of it. On the other hand, this "good" character of love can only constitute a motive for action in so far as one does experience it (in the first instance) as a character of one's *own* activity, of one's own being. Only because it is first recognised as a character of one's own activity is it known to be also a character of the activity of others. And the moral claim to foster love in others constitutes a moral motive for one's own action only through one's own will for rationality. But before accepting this view we must examine two kinds of radical ethical scepticism, both of which have come into prominence during the present century.

IV. ETHICAL SCEPTICISM: ETHNOLOGY AND PSYCHO-ANALYSIS

(a) *The Subjectivity of Value*.—We have considered several types of ethical theory, none of which can be regarded as entirely satisfactory. I shall now set forth and criticise the main arguments of those who regard "good" and "bad," "right" and "wrong" as entirely subjective.

Value, they assert, is essentially value *for* some conscious individual. Even if psychological hedonism is

false, the truth remains, we are told, that a man cannot value anything other than the fulfilment of his *own* activities, and the means thereto. Nothing, then, can be good in itself, apart from anyone's valuation of it. The idea of an objective good is not merely false, it is meaningless. Meaningless, too, is the idea that moral obligation has some mysterious kind of objective sanction. No intelligible account can be given of these ideas. On the other hand, a perfectly satisfactory account can be given of their historical origin. They are, in fact, superstitions generated in men's minds by social forces. They can be described scientifically in terms of the established principles of psychology and anthropology.

(b) *Social Determinants of Morality*.—Man is a gregarious animal. Morality is a consequence of his social habits. For creatures that are not gifted with formidable weapons gregariousness has survival value. The more the individuals of a group tend to live together and act together, the better the group's chance of circumventing its enemies. Consequently those groups tended to survive in which the individuals were knit together by strong group-feeling; that is, in which there was a strong disposition to conform with other members of the group in physical and mental behaviour, and a strong disposition to enforce conformity upon those who were in any way eccentric. Thus by natural selection (we are told) there grew up a craving to conform to the customs of the group and to feel mentally at one with the group. Along with this appeared the impulse to condemn those who dared to infringe the customary ways of behaving and thinking and feeling. Such, it is claimed, are the biological and

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psychological roots of all moral aspiration and moral censure.

One of the main factors determining the particular customs and moral feelings of a group would obviously be survival value. Useful customs would tend to be perpetuated, harmful ones would tend to vanish. But we should indeed be innocent if we were to suppose that social utility was the sole determinant of morality. In the first place we must remember that customs tend to fall out of date. The circumstances to which they were originally adapted give place to new ones in which the customary mode of behaviour may be positively harmful. Then the moral feelings that sanctify and maintain that custom, and are inculcated in each successive generation by education, will resist any attempt to change the custom to suit the new circumstances. Thus archaic customs, formerly beneficial, may survive for ages, supported by irrational prejudice and defended by all manner of specious and subtle argument.

But this is not all. Groups have leaders, individuals who by their real service to the group or by mere personal dominance over their fellows, or by some purely factitious glamour, focus on themselves the loyalty of the rank and file, and are taken as patterns which all humbler individuals seek to imitate. Of course, if the example of the leaders too flagrantly violates the group's sanctified customs, it will be rejected. But the prestige of leadership may afford the leaders considerable freedom to found a morality of their own. In one obvious respect their behaviour tends to differ from that of the masses. They develop customs suited to their particular position; and since they have prestige

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and power they inculcate in the masses, by force and propaganda, certain customs and moral feelings which are likely to strengthen their own position as leaders. Thus there will appear a special morality for leaders and a somewhat different morality for lowly folk. But at the same time much of the morality of the leaders will be adopted as an ideal by the lowly also, though it may be quite unsuited to their condition.

These principles must be applied not only to the early but to the later stages of the history of morals. But in the later stages the complexity and weight (so to speak) of past morality tends more and more to hinder new situations from bringing about adequate moral changes. On the other hand, in the modern world industrialisation has produced very rapid changes in the structure of society itself; so that even the huge dead weight of moral tradition has begun to be shifted more rapidly than ever before, though not without resistance.

Another important difference distinguishes the modern from the primitive ages of human development. In the modern phase, and indeed throughout the whole period of civilisation, the morality of the leaders is no longer a simple code of chieftainship but a mixture made up of such elements as: vestiges of archaic moralities; incursions from the morality of the subordinate classes during times of moral revolution (e.g. early Christianity); vestiges of the moralities of subsequent dominant classes (e.g. feudal or military or commercial aristocracies); and, finally, new principles or new applications of old principles, forced on the dominant class by its struggle to maintain its power (e.g. some characteristics of Fascism).

Roughly, the more secure the leaders feel themselves

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to be, the more generous their morality. On the other hand, the more precarious their hold, the more will they be forced to the conviction that, for the good of society itself, they must at all costs maintain the existing order and their dominant position in it. In all sincerity they will tend in the long run to believe that practices of the most deceitful, ruthless, and even brutal kind are not merely permissible but obligatory, if they seem to promise the maintenance of the *status quo*.

(c) *Economic Determinants of Morality*.—Clearly the main underlying factor which determines the history of morality as sketched above is the economic factor. Different kinds of morality will develop in different economic environments. A hunting community will perhaps stress hardihood, an agricultural community industriousness. A feudal aristocracy will glorify the martial prowess by which it maintains its position. The virtues prized in a commercial class are likely to be those which helped it to gain and retain power—in fact, the business virtues of prudence, reliability, and individual initiative. A commercial oligarchy will also tend to regard as morally right the principle of unrestrained commercial competition between individuals, and as morally wrong the workers' attempt to combine to secure better conditions. A society organised on the basis of private enterprise will probably incline to take as its effective ideal that of the outstandingly successful commercial individual—in fact, the millionaire. A society in which modern industrial activity has reached a very high pitch and is not consciously planned for social welfare will tend to glorify industrial power as an end and not merely a means. A society in which a proletarian class has achieved a successful social

revolution by combining against the employers will glorify comradeship, group-loyalty, and the proletarian virtues of manual toil.

In a later chapter I shall discuss the theory of Economic Determinism in relation not merely to morality but to the whole of the life of society. Meanwhile let us pass from the social determinants of morality to another class of influences which seem to support Ethical Scepticism.

(d) *Psycho-analysis and Morality*.—Ethical Scepticism can be defended by arguments derived from Psycho-analysis and from General Psychology.

We must distinguish between those psycho-analytical doctrines which are common to all schools of Psycho-analysis and those in respect of which there is serious difference of opinion. Those on which there is agreement among psycho-analysts are also accepted by most psychologists and deserve careful attention. It is not merely the doubtful doctrines, but those on which there is general agreement, which seem to support Ethical Scepticism.

One doctrine which is accepted as a working hypothesis by all psychologists is the doctrine of Psychological Determinism, according to which any particular experience or activity is determined by the preceding state of the organism and the environment. The justification for this hypothesis lies in the fact that up to a point men do behave in a regular and predictable manner, and that psychologists have discovered much more system, and therefore determinism, than was formerly supposed to exist. The concept of moral obligation is generally thought of as involving freedom to do *either* the right *or* the wrong act.

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Psychological Determinism seems to rule out this possibility.

Psychology has certainly not yet been able to demonstrate that human behaviour is systematic or determinate through and through. It has merely brought to light an increasing number of regularities in behaviour. But let us suppose that some day it succeeds in proving determinism conclusively. Then, though the arbitrariness of moral choice would be excluded, it might still be that one among the many factors determining behaviour was, indeed, the moral motive, but that this motive, like all others, took effect in a regular manner and was therefore predictable. Different individuals in different circumstances might have determinate degrees of the power of freely and spontaneously resisting temptation and holding to the path of moral rectitude.

Leaving aside this general question, let us note the more special ways in which Psychology, and particularly Psycho-analysis, seems to support Ethical Scepticism.

Conscious behaviour, it is claimed, is largely determined by needs or cravings which are "unconscious," which are not accessible to introspection. Long before the days of Freud "unconscious prejudice" was recognised as an important fact; but Freud used this familiar concept as the basis of a comprehensive theory of human behaviour. In particular he used it to explain our moral experience. If all moral judgments are at bottom cases of unconscious and irrational prejudice derived from past experiences that are not really relevant to the present judgment at all, it is nonsense to suppose that conscience is a unique faculty, by which we distinguish between the objectively right and the objectively wrong.

Freud's great contribution to psychology was undoubtedly the concept of mental conflict and repression, with consequent unconscious motivation. His own detailed account of the mechanism of repression and the "content of the unconscious" is disputed by other schools, but the general principle is accepted. The essential concept of the "unconscious mind," with its "unconscious mental processes," its unconscious desires and thoughts, is open to very serious philosophical objections; but there is agreement that, however confusedly Freud has described the concept, it really does mean something of very great importance for the understanding of human behaviour. We may perhaps make "unconscious mental process" more intelligible by describing it as mental processes which we are incapable of introspecting. We cannot attend to the fact that we are having them.

According to the general theory, when one set of our needs (or cravings) conflicts with another set, repression may occur. Cravings which are violently repugnant to the main system of experience (the dominant, conscious personality) may be "thrust below the threshold of consciousness," may cease to be introspectable. But though they are in this sense "unconscious," they continue to influence behaviour and emotion, and particularly our moral judgments.

Our moral experience, it is claimed, is of the same nature as taboo in primitive society. Certain acts are "not done." The very contemplation of them arouses horror and shame. The taboos of primitive races, which they themselves accept uncritically as self-evidently right and divinely sanctioned, often seem to us irrational and fantastic. Certain animals must not be

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killed by any member of the tribe. Men must not marry women of the same tribe. Certain obscure ritual acts must be performed at certain seasons. Such irrational and highly emotional taboos (we are told) are expressions of unconscious needs generated in each member of the tribe by his own mental conflicts in connection with his relations with his own parents, and handed on and embroidered from generation to generation. The taboo animal and the taboo act symbolise emotionally cravings repressed since childhood. We easily forget that many of our own most cherished moral convictions would seem quite as arbitrary as savage customs to those who were not brought up to accept them. It is probable (we are told) that the true explanation of our own morality is of precisely the same type as that of primitive morality.

The defender of ethical objectivity may reply that, of course, much of our moral experience is indeed irrational and arbitrary, but that there are certain fundamental simple moral intuitions which cannot be undermined. For instance, it may be said, the commandment, "Love thy neighbour," is the expression of a genuine intuition.

Many psychologists, however, would deny this. They would insist that even the most refined and generalised moral intuitions must be explained by the same principles as the most primitive. In one way or another everything in moral experience must have developed out of the infant's behaviour, which, they assure us, is completely ego-centric and irresponsible. There may be room for doubt as to the particular "mechanism" by which this evolution has come about, but the general principle, it is claimed, is certain.

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In the Freudian view, the depth and intensity of moral experience, both the horror of guilt and the passionate aspiration for moral purity, must be traced to the infant's relations with its parents. The violence of moral emotions and their resistance to criticism point to an infantile source. In the child's early days mother and father dominate its experience, and mould its character for ever after. In respect of each parent its mind is torn (we are told) by a conflict of love and hate, love on account of benefits received and hate on account of restrictions imposed. The love, it is insisted, is in the first instance sheer "cupboard love," and the hate is of the same order. The conscious personality is taught to be ashamed of the hate; which is in consequence repressed, to generate in the "unconscious" all manner of irrational prejudices and needs for destructive action. Love, on the other hand, which the parents applaud, is idealised all the more through revulsion from repressed hate. All moral guilt is at bottom (we are told) guilt for the infringement of taboos enforced in childhood. Even if we hesitate to accept the Freudian contention that in origin it is the guilt of hostility to the father or the mother, and of forbidden sexual love for the mother or the father, the general tenor of the argument must, I think, be taken very seriously.

(e) *Criticism*.—The foregoing arguments for Ethical Scepticism are very strong, but they should not be accepted as final.

Let us begin by considering the arguments derived from Psycho-analysis. Of course, the detail of the explanation is little more than guess-work, and has been supported by a good deal of faulty argument. But what of the general principle that conscious value-

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judgments are the expression of unconscious and often trivial wishes? This principle must, I think, be accepted as at any rate true of many particular moral feelings. It follows that moral intuitions must not be taken simply at their face value. They must certainly be subjected to severe criticism, even if radical Ethical Scepticism is not justified.

The nerve of the argument derived from Psycho-analysis consists of the charge that all moral feelings develop from the experience of the infant, and that the infant is wholly egotistical. To this contention serious objections must be made. The first is a very general and very important objection. The analytic method, which has been so successful in the case of physical science, *may* be the right method for the understanding of human behaviour; but there is always a danger that, in our zeal for analysis and explanation in terms of constituent parts, we shall overlook some subtle aspects of human behaviour which are not actually reducible to simple factors. Whatever the state of the infant mind, it *may* be that, through the operation of intelligence and imagination, the individual comes to conceive essentially new ends, not reducible to the ends sought in infancy. In the present sketchy state of psychology a confident denial of this possibility smacks of sheer prejudice in favour of analysis.

A more particular criticism must be made. The vogue of Psycho-analysis was partly due to the cogency of evidence and partly to the emotional release which the doctrine afforded to minds that had been dominated by Victorian self-righteousness and prudery. Inevitably emotional acceptance of the new doctrines blinded people to their intellectual weaknesses. After a while,

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however, many of those who had welcomed Psycho-analysis felt misgivings about some of its arguments. Wohlgenuth, once a follower of Freud, exposed the weakness of some analyses by Freudians. More recently Ian Suttie has criticised Psycho-analysis from a somewhat different angle. He suggests that in modern Europe there occurred a widespread emotional reaction against kindly feeling, and a consequent "taboo on tenderness." The psycho-analysts themselves, he argues, were deeply influenced by the prevailing prejudice, and by it they were sometimes led into false reasoning. Suttie points out that the infantile attitude is not, strictly speaking, egotistical, since it does not discriminate between self and not-self. As soon as this discrimination does begin to occur, as soon as the distinction is made between "me" and "you," genuine tenderness toward the mother emerges along with genuine egotism.

If this analysis is correct, then the orthodox Freudian theory is in error, and moral experience must be derived from the conflict between tenderness and egotism. Tenderness is not merely a kind of "conditioned egotism" but a direct "espousal" of the active needs of another individual, an "espousal" which is of the same primary order as the "espousal" of one's own needs, though, of course, generally much less constant and vigorous.

The Ethical Sceptic, however, may circumvent this criticism. He may grant that tenderness is a psychologically primary impulse, and yet insist that this fact has no bearing on ethics. Citing the ethnological argument, he may say that tenderness is simply a response which has survival value in social organisms. It is

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merely the affective or emotional side of sociality. The fact that individuals who do not feel it are censured by society means only that society condemns reactions that are socially harmful.

True, but more must be said. We must remember once more the fundamental criticism which was made against the analytic method. We must not too readily assume that, because the method has succeeded so well in physical science, therefore it is infallible in psychology, and particularly in the study of the more subtle reaches of human experience. If we use it we must continually check it by reference to the actual experience which it is claiming to explain, so as to be sure that it really is explaining *that* and not something *else*, connected with or like that, but essentially distinct. It is notorious that many of those who have keen sensibility in the most developed spheres of human experience, in literature, art, the appreciation of personality, and in moral perception, find the psycho-analytical account of these experiences ludicrously inadequate. To them it seems that the Ethical Sceptic never really apprehends the experience that he undertakes to explain; or that, if he does apprehend it, he allows his clear vision of it to be obscured in the interest of a theory. He attends to, and correctly explains in terms of his science, certain aspects of its growth, yet completely misses the nerve of the matter.

Roughly, what he does is this. He traces the growth of moral customs from certain primitive origins, and claims that he has completely accounted for morality. If he could have divested himself of his prejudice for analysis, if he could have faithfully observed the activity itself without preconceptions, he would have

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realised that, whatever the historical origins of it, in its fully developed form it included something different in kind from its primitive sources, in fact, that a genuine novelty had somewhere emerged. He would allow for a gradual awakening and refinement of moral sensibility from the infant's earliest precarious tenderness, or the tribe's primitive social cohesion, to the saint's perception of the absolute goodness of love.

V. ETHICAL SCEPTICISM: LOGICAL POSITIVISM

(a) *The Claims of the Logical Positivists.*—A still more radical kind of ethical scepticism can be derived from Logical Positivism. The argument runs as follows. Ethical statements cannot be verified in any sort of sense-experience. Therefore they are meaningless. The fundamental ethical concepts are not really concepts at all but pseudo-concepts. They do not say anything; they merely evince approval or disapproval. And these are simply feelings, facts in the speaker's mind, unrelated to any objective ethical facts or principles. The statement "X is good" does not even say something about one's own feelings, since it expresses no real proposition. It is merely an emotional response, like a cry of delight.

It may be objected that, if ethical statements were really meaningless, we should not be able to dispute about questions of value. If they are *mere* cries of approval and disapproval, if they are not really statements at all, if they do not mean something intelligible about a common or public object, there can be no disputing about the truth of their meaning. Yet seemingly we do dispute a great deal about moral questions.

To this objection the Logical Positivist replies as

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follows. The truth is that we never do actually dispute about questions of value. When we think we are doing so, we are really either making noises which, though composed of meaningful words, are *as wholes* mere meaningless noises of approval and disapproval; or else we are disputing about questions not of value but of fact. If one man says that stealing is bad, and another contradicts him, the ensuing argument always consists of a dispute as to what stealing really is. Each hopes to show the other that he is wrong about the facts. Each believes that, if his opponent could see the facts as he does himself, the two of them would at once feel the same approval or disapproval (or indifference) about them. Very often the hope is justified, since we are all constituted much alike in many important respects. But sometimes the dispute does not end in agreement. Disputants who have been nurtured in very different traditions may find that the discussion ends in a deadlock. That is, though they are both considering the same facts, they feel differently about them. And there the matter ends, however much more talking there may be. Each probably charges the other with having an undeveloped or distorted moral sense. According to Logical Positivism, this kind of situation arises because ethical statements, though they are worded as if they were statements about fact, are really meaningless, like grunts of pleasure and disgust. There comes a point when the disputants merely, so to speak, grunt louder and louder at each other.

If this theory is true, it follows that there can be no such thing as an ethical science, a study of objective good and bad. All that there can be is a psychology

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of morals, a study of the ways in which people do, as a matter of fact, feel approval and disapproval.

(b) *Criticism of Logical Positivism on Ethics.*—It is obviously true that ethical statements cannot be verified in sense-experience. There is no conceivable kind of sense-experience that could afford verification of the statement, "murder is wrong." But it is a mistake to suppose that therefore the statement is meaningless, and a mere grunt of disapproval, if by "disapproval" is meant a subjective state which has no intention beyond itself. As a matter of fact, "disapproval" is the right word for the matter, since it has essentially an ethical significance. Of course, it is very difficult to say precisely what it is that we mean by disapproval in the strict moral sense. Indeed, "disapproval" and "approval" are probably, as Professor Moore has pointed out, strictly indefinable, like "red." But to suppose that, because their meaning is unverifiable in sense-experience, therefore they are meaningless is as grave a refusal to face the facts as the priests' refusal to watch Galileo drop weights from a tower. We all know quite well that we do mean something by these words, even though we find it extremely difficult to say what we mean. Some Ethical Sceptics reluctantly concede that we do mean something; but they insist that we mean merely, "I like X, and I wish *all* men did." But this is not enough. Rightly or wrongly we *mean* something more than this. And the something is in some way concerned with what X is and what any normally developed mind cannot but feel about such a thing as X. When we say, for instance, that murder (the destruction of human life for private ends) is wrong, we mean at least "Murder is such that (or contains

an element which is such that) *any* mind capable of apprehending murder accurately cannot but condemn it." Murder is such that, and mind is such that, mind must condemn murder when it realises what murder is. But the word "condemn" probably itself means the identical indefinable thing meant by "disapproval."

According to Logical Positivism, these moral statements are not merely false but meaningless, because not verifiable in sense-experience. But the Logical Positivist should recognise that they can be verified (i.e. put to the test) in another kind of experience, namely moral experience. That is, one can go round telling people precisely what one means by "murder," helping them to imagine it accurately, and if possible enabling them to watch a murder or two (not so difficult to-day); and one can demand what *they feel* about it. In nine cases out of ten they will reply that they "disapprove" of murder, *in the universal sense* above described. The small minority who failed to give this reaction might have to have their imaginations aided still further. It might be necessary to start murdering the murder-apathetic himself, so as to clear his mind of moral perversion or of the false theory of Ethical Scepticism. Probably not more than one per cent. would fail to be enlightened before their death.

But the ground for the assertion that murder is in the universal moral sense wrong is not merely inductive, not merely the fact that most people do condemn it. The claim is made that *any* mind that is sufficiently developed to see murder as it really is must necessarily condemn it. And to verify this claim it is enough for anyone, who is morally neither blind nor perverted, to contemplate murder as clearly as possible and see for

himself that this is so. Moral truth is in one respect like arithmetical truth. To recognise the universal truth that $2 + 2 = 4$ it is necessary only to see one concrete example of it, say, two marbles added to two marbles. Similarly, to recognise the universal truth that murder is wrong we have only to contemplate one concrete example of it. That is, contemplating one example of it, we affirm that, murder being such as it is, *any* conscious being who sees it as it is must *necessarily* condemn it. The affirmation may be false, but it is not meaningless. Nor, as a matter of fact, is it unverifiable in direct experience (though not in sense-experience), for you have only to get a clear idea of murder to see that this is so.

Consider for a moment a case of intuited good instead of intuited evil. The mutual awareness and mutual valuing of two persons is experienced by lovers as intrinsically good, as something which *any* conscious being who recognises it for what it is must *necessarily* prize and applaud, because it is experienced as a notable fulfilling of the knowing-feeling-willing capacity which is the essence of "a conscious being."

To all this the Logical Positivist will reply that the universality and necessity of these moral judgments are sheer illusion. We have no right, he will say, to read all this into our mere private feelings of liking and disliking. To this the only possible answer is that he must look into his experience a little more closely and without bias in favour of a theory. He may then discover that he has ignored an essential feature of it.

Perhaps he will then fall back on the contention that, after all, love is not *universally* applauded nor murder universally condemned. As for murder, many people

to-day glory in it. What right have we to accept the verdict of the one party and reject that of the other? It is all very well to claim that the condemners of murder are more developed, more enlightened, more aware; but do we call them so for any more cogent reason than that they agree with us, about murder and other matters?

To this we must make a twofold reply. First, of the many who justify murder, most "know not what they do," or else are perverted and blinded by special conditions. Second, the statement, "Murder is wrong," is supported not only by the intuitive disapproval experienced by all normal minds, but also by a more general principle (itself founded on intuition), namely, "Living is good"; or, more accurately, "The free performing of the multifarious activities known as living is good." The most developed, the most awakened minds of all lands and ages have emphatically condemned murder. If Logical Positivism denies that there is any valid distinction between the mentally less developed and more developed, we must reply that, though the concept may be misused, it is a concept of great service, which is used effectively every day in our relations with one another. Moreover, it is a concept which can be defined objectively. A mind is "more developed" in which cognition is more accurate, penetrating, and comprehensive, and affection and conation more appropriate to the mind's whole situation. As between one mind and another we may often disagree as to which is in fact more developed in this manner, but in many more cases we decide quite easily. The concept of developed mentality is a generalisation both from scientific and from intuitive experiences. Of the

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concept itself we have seldom any doubt. Of this I shall have more to say in the next chapter.

VI. THE PRACTICAL UPSHOT

I shall now draw together the threads of the foregoing discussion. In the first place, then, we must recognise that Intuitionism is right in its fundamental contention. "Good" is a unique objective character which we intuitively apprehend as "ought to be," and "ought to be striven for." When we clearly see a possibility of good we recognise that any being who can strive for it ought to do so. This is the fundamental unanalysable moral experience. No theory which does less than justice to it is to be accepted.

On the other hand, in the first instance we recognise this character of "ought to be" only as a character of our own free activity. It constitutes a motive for our action because in the first instance it is experienced as a character of our own activity.

Our powers of recognising possibilities of good and bad vary immensely from the level of simple bodily appetite to the level of saintliness. Even bodily appetite, I should say, includes a moral aspect. When I am hungry I do not merely crave food; I feel that I *ought* to be fed. My hunger, I feel, constitutes a claim on all beings who know what hunger is and that this creature is hungry. This moral aspect of one's own bodily appetites is obscured by traditional views of morality; but for those who can divest themselves of the tradition it is discoverable. In the case of another's hunger I do not recognise the moral claim unless either I imagine it very vividly or I have already formed moral theories about it.

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Moral *judgments* may conflict with one another. Two conflicting moral judgments cannot both be right. This does not mean that the moral intuition itself is subject to error, but merely that we may fail to disentangle the intuition itself from irrelevances, or may unconsciously pretend to have an intuition when we actually have it not. The intuition itself is infallible; but we can never be sure that we have it, or that we have not confused it, or expressed it falsely in words. In the same way sense-experience is infallible, but we may unconsciously pretend to have it when we have it not, and we may misdescribe it, and so on.

What kinds of things, then, are characterised by this unique quality of "good," and what by "bad"? In the most general sense, only one kind of thing is good, namely, free activity, and only one kind of thing is bad, namely, frustration. But we are complex beings, capable of many kinds of action and frustration. The full answer to the question, then, depends on the answer to the question, What kinds of activity are most fulfilling to our active nature? This question is to be satisfactorily answered only by minds that are in two manners qualified to answer it. They must have reached a fairly high level of moral sensibility; but also they must have a fair degree of intellectual acuity. What sort of an answer do such people as a matter of fact give? No doubt their answers conflict; but is it not true that, on the whole, apart from idiosyncrasies peculiar to their personality or their social conditions, and apart from differences of verbal formulation, which may be very serious, they show remarkable agreement? Whatever else may be intuited as good intrinsically, one thing at least is so intuited. One

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thing at least we all, in our most lucid moments, recognise as good. But though in some degree this thing is familiar to us all, it is difficult to name adequately or to describe. Let us call it, for the moment, very vaguely, the free functioning and full development of the capacity for knowing-feeling-striving; or, since individuality and community are inextricably mingled, the fulfilling of the capacity for personality-in-community. Need I say that the word "knowing" in the phrase "knowing-feeling-striving" must not be taken to mean merely intellectual knowing? It must include every kind of awareness or cognition.

Many kinds of things, of course, are sometimes *judged* good. But of most of them it can be maintained that they are not intuited as good, in the same sense as that in which we intuit free activity as good. For the word "good," as we have seen, is ambiguous. It sometimes refers to an activity in relation to some object and sometimes to the object itself. Thus, when we say that a picture is good, what we actually intuit as good in the one sense of the word is the picture, but in the other sense what we intuit as good is what we can *do* with the picture. To take a very different case, the sadist may judge that torturing is good, intrinsically. No doubt he does intuit it as good in so far as it is a fulfilling of some obscure need of his own personality, but he does not intuit (though he may declare) that the thwarting of the other person's personality is good intrinsically.

It may be objected that such phrases as "free functioning" and "fulfilling of capacity" are too vague to be useful, and that they obscure the great difference between the activities that have a genuine moral aspect

and those which have not. There is a world of difference, it may be said, between such morally indifferent activities as eating and such morally desirable activities as charity.

It is true that there is a world of difference between such activities. But the difference is not such that one kind has a moral aspect and the other not. Of course we must not fall into the error of hedonism, and suppose that by "fulfilment" we mean always one and the same experienced quality, namely, pleasure, which can be simply measured by its intensity. Pleasure, no doubt, is the abstracted *sense of* fulfilment, or "how fulfilment feels"; but it is not simply identical with fulfilment. At any given time one's fulfilment as a whole, as a personality, may simply not be open to consciousness. Consequently, conscious fulfilment (pleasure) may be a very misleading measure of fulfilment. Under the spell of a minor conscious fulfilment we may overlook the fact that this minor fulfilment entails a major frustration beyond the present reach of consciousness. Indeed, habitual indulgence in minor pleasures may render for ever impossible a major fulfilment which, had it occurred, would have been recognised as more worth while than those pleasures which were chosen. We must certainly allow different orders of fulfilment on different planes of mental development. And the final measure of the relative worth of activities on the different planes must be intuitive. But the verdict of intuition is not valid unless both the activities to be judged are fully open to conscious inspection, and unless the judgment is not warped by the pressure of grave frustrations. It is important to realise that, though biological and psychological theory may afford

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a useful elucidator of the relations of mental levels, the final test must be intuition. We must boldly affirm that to the developed mind the more developed activities do afford a deeper or more comprehensive fulfilment than the primitive activities; and that the former are intuited as in some sense more truly the goal of living than the primitive activities. But this statement needs much more careful discussion than is possible here.

In the next chapter I shall enlarge upon the subject of the more developed human activities. For the moment it is enough to say that they are those which psychological analysis reveals as the most complex, most subtle, most integrated activities. They are, in fact, the most penetrating and comprehensive modes of knowing-feeling-striving. They include the most precise self-awareness, the most delicate personal intercourse, the most accurate social awareness, the most subtle practical and theoretical intelligence, the most creative art, and, I believe, certain experiences and activities which may be called mystical.

We have already examined the practical and theoretical intelligence. We shall examine personal and social experience, and at the close of our enquiry we shall consider mystical experience. *Æsthetic* experience, the kind of experience with which art is concerned, we must leave untouched, owing to lack of space. *Æsthetic* theory is so confused that no adequate brief discussion of it is possible. I will say only that, in my view, art is to be explained in terms of symbolic satisfactions—personal, social, and perhaps mystical; that there is no need to introduce a unique kind of *æsthetic* value, to be called "beauty" or "significant form."

PHILOSOPHY AND LIVING

One point about primitive and developed activities must be emphasised. We must distinguish between the urgency of the primitive activities and the ultimacy of the developed activities. In starvation the urgency of eating eclipses all else; but a human life in which there were no activity superior to eating would be a poor thing.

On the other hand, a life in which the primitive activities were regarded solely as necessary means to the higher activities would be not merely physically but also mentally and spiritually unwholesome. For the primitive activities, such as eating, bodily exercise, and physical sexual activity, can afford not only a purely physical but also a spiritual refreshment and elucidation. So to speak, the developed human mind can actually discover more *in* these activities than the animal or child can discover. For the child and the animal they may be more intense; but the well-grown adult, unhampered by puritanical taboos and unspoiled by excess, experiences them with more discrimination and penetration. Seeing them in relation to one another and to the rest of his experience, he may discover in them a significance which would not otherwise be revealed, a significance which may be called spiritual.

The word "spiritual" is dangerously ambiguous and emotive. I use it to refer solely to those activities which the developed mind intuitively expresses the most developed part of human nature, as being, in fact, at the upper limit of human capacity.

For each individual there is implied in his nature as a knowing, feeling, and striving thing an ideal of personal fulfilment. For him what is desirable, what is good, whether he consciously wills it or not, is that he should

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know, feel, and strive as fully as possible, as coherently as possible, as creatively as possible. *If* he recognises this fact about his nature, and *if* he has it in him to feel appropriately toward it (that is, if he really is a moral being), he ought to strive to realise his potentiality to the full. He ought to seek to know the world around him as truly as possible through whatever channels of experience are open to him. He ought to seek to correlate truly all the diverse modes of his experience. He ought to seek to prevent his understanding from being distorted by the influence of cravings, conscious or unconscious. He ought to seek to feel and strive appropriately to the world that he experiences. For instance, he ought not to let self-regard distract him from the service of the community. He ought to seek to "espouse" all good causes in just proportion. Not only so, but, so far as he can, he ought to strive not merely to foster the vital capacities of himself and others but also actually to evoke in himself and others new capacities of higher order. Here lies his opportunity of creative action.

The foregoing statement of the personal ideal is, of course, extremely abstract. For any particular person, with particular equipment and in particular circumstances, the direction will be something much more concrete and limited.

Practical morality is in the main concerned with the relations between human beings. Whatever the origins of the sense of obligation, in the developed mind it is bound up with two features of experience, namely, sympathy and rationality. The fulfilment of another individual personally known to the subject himself is easily intuited as good, and his frustration as bad.

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Moral development involves, among other things, the widening of the scope of spontaneous sympathy to embrace not merely personal beloveds, not merely companions whose character affords fulfilment to one's own personal needs, but even alien beings who are known to be in need.

Moral development also involves something more than this expansion of spontaneous sympathy. The rational impulse, which is also the impulse for objectivity in thought and action, is very relevant to morality. That which in oneself is intuited as exercising a moral claim on others for help, namely, "my personal need," exercises that claim wherever it occurs, whether or not I have close acquaintance with it or merely learn of it, whether or not I have enough of sensibility and imagination to feel spontaneous sympathy for it. On the strength of my own experience of my own needs and my experience of obligation toward particular individuals other than myself, I have formed a generalisation to this effect, and I recognise an obligation to make my conduct conform to the general good.

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Invasion from Mars

Upon the foot-hills of the new and titanic mountains that were once the Hindu Kush, were many holiday centres, whence the young men and women of Asia were wont to seek Alpine dangers and hardships for their souls' refreshment. It was in this district, and shortly after a summer dawn, that the Martians were first seen by men. Early walkers noticed that the sky had an unaccountably greenish tinge, and that the climbing sun, though free from cloud, was wan. Observers were presently surprised to see the green concentrate itself into a thousand tiny cloudlets, with clear blue between. Field-glasses revealed within each fleck of green some faint hint of a ruddy nucleus, and shifting strands of an infra-red colour, which would have been invisible to the earlier human race. These extraordinary specks of cloud were all of about the same size, the largest of them appearing smaller than the moon's disc; but in form they varied greatly, and were seen to be changing their shapes more rapidly than the natural cirrus which they slightly resembled. In fact, though there was much that was cloudlike in their form and motion, there was also something definite about them, both in features and behaviour, which suggested life. Indeed they strongly reminded of primitive amoeboid organisms seen through a microscope.

The whole sky was stre

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Invasion from Mars

(continued)

them, here and there in concentrations of unbroken green, elsewhere more sparsely. And they were observed to be moving. A general drift of the whole celestial population was setting toward one of the snowy peaks that dominated the landscape. Presently the foremost individuals reached the mountain's crest, and were seen to be creeping down the rock-face with a very slow amoeboid action.

Meanwhile a couple of aeroplanes, electrically driven, had climbed the sky to investigate the strange phenomenon at close quarters. They passed among the drifting cloudlets, and actually through many of them, without hindrance, and almost without being obscured from view.

On the mountain a vast swarm of the cloudlets was collecting, and creeping down the precipices and snowfields into a high glacier valley. At a certain point, where the glacier dropped steeply to a lower level, the advance guard slowed down and stopped, while hosts of their fellows continued to pack in on them from behind. In half an hour the whole sky was once more clear, save for normal clouds; but upon the glacier lay what might almost have been an exceptionally dark solid-looking thunder-cloud, save for its green tinge and seething motion. For some minutes this strange object was seen to concentrate itself into a somewhat smaller bulk and become darker. Then it moved forward again, and passed over the cliffy end of the glacier into the pine-clad valley. An intervening ridge now hid it from its first observers.

Lower down the valley there was a village. Many of the inhabitants, when they saw the mysterious dense fume advancing upon them, took to their mechanical vehicles and fled; but some waited out of

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Invasion from Mars

(continued)

curiosity. They were swallowed up in a murky olive-brown fog, shot here and there with queer shimmering streaks of a ruddier tint. Presently there was complete darkness. Artificial lights were blotted out almost at arm's length. Breathing became difficult. Throats and lungs were irritated. Every one was seized with a violent attack of sneezing and coughing. The cloud streamed through the village, and seemed to exercise irregular pressures upon objects, not always in the general direction of movement but sometimes in the opposite direction, as though it were getting a purchase upon human bodies and walls, and actually elbowing its way along. Within a few minutes the fog lightened; and presently it left the village behind it, save for a few strands and whiffs of its smoke-like substance, which had become entangled in side-streets and isolated. Very soon, however, these seemed to get themselves clear and hurry to overtake the main body.


When the gasping villagers had somewhat recovered, they sent a radio message to the little town lower down the valley, urging temporary evacuation. The message was not broadcast, but transmitted on a slender beam of rays. It so happened that the beam had to be directed through the noxious matter itself. While the message was being given, the cloud's progress ceased, and its outlines became vague and ragged. Fragments of it actually drifted away on the wind and dissipated themselves. Almost as soon as the message was completed, the cloud began to define itself again, and lay for a quarter of an hour at rest. A dozen bold young men from the town now approached the dark mass out of curiosity. No sooner did they come face to face with it, round a bend in the valley, than

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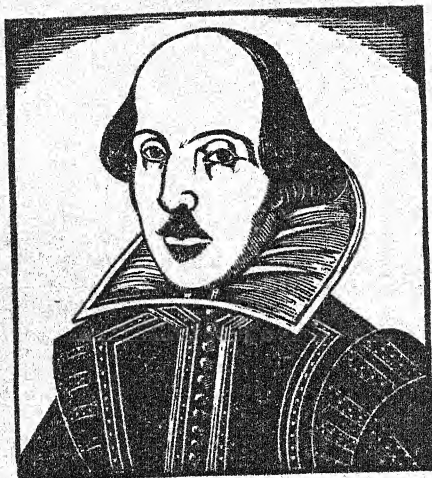
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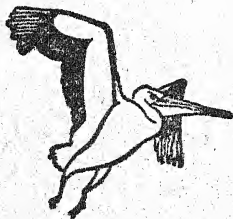
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